User Manual

DVS-8501E

1 Channel H.264 Video Encoder

CTC UNION TECHNOLOGIES CO., LTD.

LEGAL

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CTC Union maintains a support web site (support.ctcu.com) where you may obtain the latest manual, quick installation guide, and operational firmware. Membership to this web site is free, however, you must be a registered member in order to access any software updates.

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1. INTRODUCTION

1.1. Welcome

Thank you for purchasing DVS-8501E, 1 channel, D1 H.264 Digital Video Server developed by CTC Union Technologies Company, Limited. For a better understanding, please read this manual before operating the DVS-8501E unit.

1.2. What is IP Surveillance?

IP-Surveillance is a term for a security system that gives users the ability to monitor and record video and/or audio over an IP (Internet Protocol-based) computer network such as a local area network (LAN) or the Internet. In a simple IP-Surveillance system, this involves the use of a network camera (or an analog camera with a video encoder/video server), a network switch, a PC for viewing, managing and storing video, and video management software.

Unlike analog video systems that use dedicated point-to-point analog cabling from the camera location to the viewing/recording station, IP-Surveillance (or network video) uses the IP network technology as the backbone for transporting information. In an IP-Surveillance application, digitized video and/or audio streams can be sent to any location, even around the world, if desired, via a wired and/or wireless IP network, enabling video monitoring and recording from anywhere with network access.

While an analog video system is for the most part a one-directional signal carrier that ends at the recording device, a network video system is bi-directional (allowing information to be sent and received) and can be an integrated part of a larger, scalable system. A network camera, for instance, can send video and audio to a user, as well as receive from the user audio and data instructions that could, for example, activate doors or external alarms. In addition, a network video system can communicate with several applications in parallel and perform various tasks such as detecting motion or sending different streams of video. Such a system provides for greater performance possibilities and flexibility.

1.3. IP Surveillance Benefits

The benefits of digital surveillance are many. At the camera level, the scalability of an IP-based system grows from a single camera to thousands in single unit increments, compared with 16-camera or channel steps for DVR or PC-based systems. In addition, any camera can be provided with any frame rate at any time, and frame rate and storage capacity can be increased simply by adding hard drives and PC servers. Moreover, IP allows "intelligent" functionality of camera, such as motion detection, sensor input, relay output and alarm triggering or even advanced intelligence like 'object left' or 'object missing'. Faster system integration allows one network that controls audio, video and data with remote accessibility of live or stored video streams from any location with increased reliability through real-time management software.

1.4. Network Video Recording

IP-based systems employ an NVR (network video recorder) rather than a DVR. The NVR is a server, using software that receives video streams of all digital video sources or analog cameras from the network and stores the content on a hard disk. Because they are IP based, Network Video Recorders can be managed remotely via a LAN or over the Internet giving greater flexibility. Capable of recording at super high resolutions and at speeds of up to 480 pictures per second, the NVR offers unmatched versatility.

1.5. Quick Install Steps

Follow these steps to install the DVS-8501E Video Server on your local network (LAN) :

1. Check the package contents against the list below. See chapter 3.1.
2. Connect the Video Server. See chapter 4.
3. Set an IP address. See chapter 6.4 for information on the available methods.
4. Connect with Internet Explorer.
5. Configure Video settings

2. TECHNICAL SPECIFICATION

2.1. Hardware Specification

Model name : DVS-8501E
Video compression : Dual-stream H.264 / Motion JPEG
Video Resolution : D1: 720 x 480 (NTSC) / 720 x 576 (PAL)
4CIF:704 x 480 (NTSC) / 704 x 576 (PAL)
2CIF:704 x 240 (NTSC) / 704 x 288 (PAL)
CIF:352 x 240 (NTSC) / 352 x 288 (PAL)
QCIF: 176 x 120 (NTSC) / 176 x 144 (PAL)
Operating system : Linux (embedded)
Video bit rate : 64K/96K/128K/192K/256K/384K/512K/640K/768K/1M/1.5M/2M
Video frame rate : 1~30 FPS
Video quality : 5 level (medium, standard, good, detailed, excellent)
Video input : 1, BNC, 75ohm, 1Vp-p
Video output : 1, BNC, 75ohm, 1Vp-p
Digital zoom : 4x
Audio compression : ADPCM, G.711
Audio input : 1 channel line in
Audio output : 1 channel line out
Ethernet : RJ45, 10BaseT/100BaseTX
Power input : 12VDC, 2A
Digital Input/Output : 1DI, 1DO
PTZ control : RS485
Local storage : 2.5” HDD *1 (SATA-II)

2.2. System Requirement

If you use the unit, please check your PC hardware level.
PC Minimum System Requirement

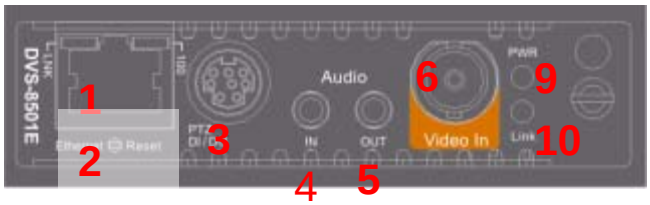
Operating System	Microsoft Windows XP
System Memory	512MB (1GB recommended)
Video RAM	64MB (128MB recommended)
Others	Requires DirectX 9 preinstalled

3. HARDWARE AND SETTING

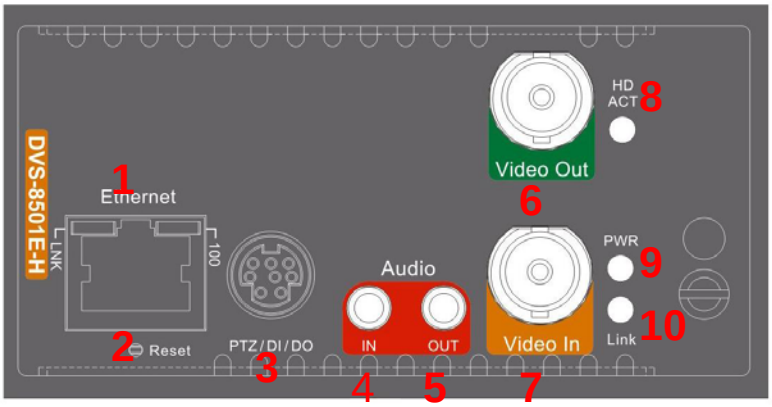
3.1. Package Contents

1. DVS 8501E video encoder
2. 12V Power Adaptor
3. CD (User Manual)
4. PTZ control cable

3.2. Overview : Front panel



DVS-8501E (Non Hard disk)



DVS-8501E-H

1. Network
2. Reset button: Press and hold the DVS 8501E front panel "Reset" button about 5 ~ 6 seconds. It will automatically restore the factory settings
3. PTZ control port
4. Audio in.
5. Audio out
6. Video in
7. Video out
8. Hard disk LED: Flash while hard disk is reading or writing.
9. Power LED
10. Network linking LED: Flash while data is transmitting.

3.3. Overview : Back Panel

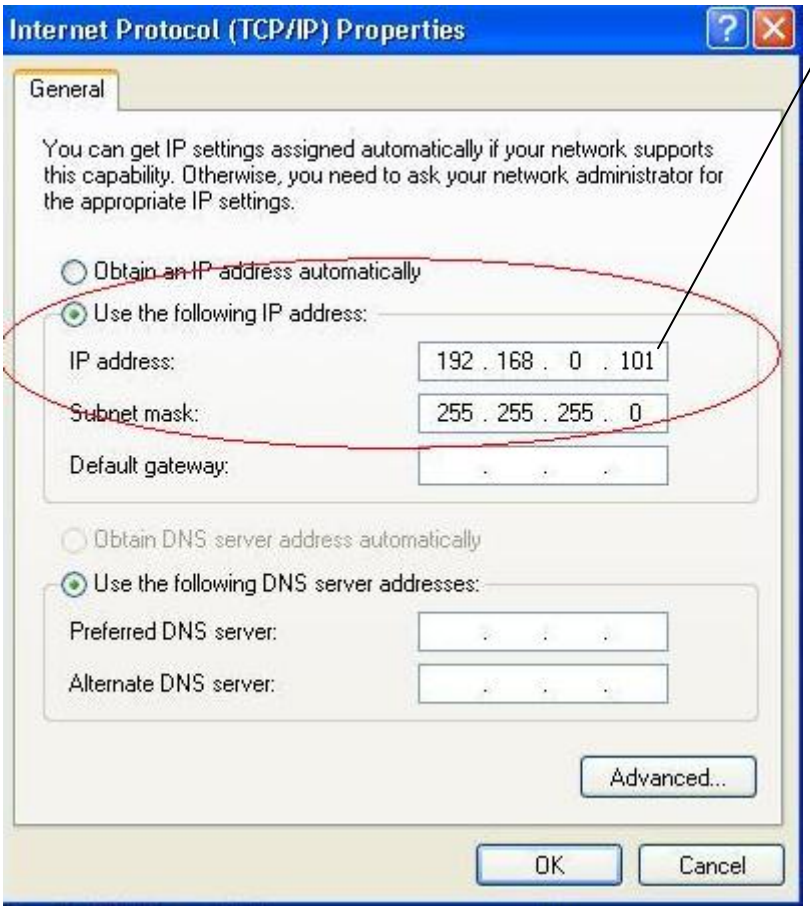
1. Power DC in

4. HOW TO ACCESS UNIT

4.1. Default Setting

Connect the DVS-8501E with the computer through a UTP cable directly. Execute Internet Explorer browser (I.E. is the only supported WEB browser now). If there is a DHCP server in local LAN, please key-in the IP address from DHCP server on address bar. If not, please use the default IP “192.168.0.100” to access the device initially.

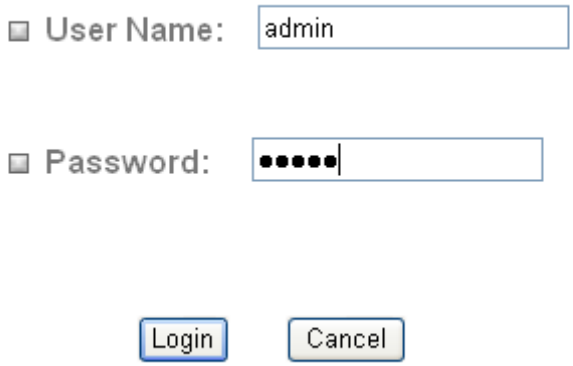
Please make sure the video server and your PC are on the same network segment before running the installation. Check it out in the TCP/IP setting in the “**Local Area Connection Properties**” of the PC under the “**Network Connection**”.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 0 . 101
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Set up your LAN IP here as below:
IP address: 192.168.0.XXX
Subnet mask: 255.255.255.0

Note: XXX from 1 to 254, except the number that already assigned to the device. (Here it is 100)

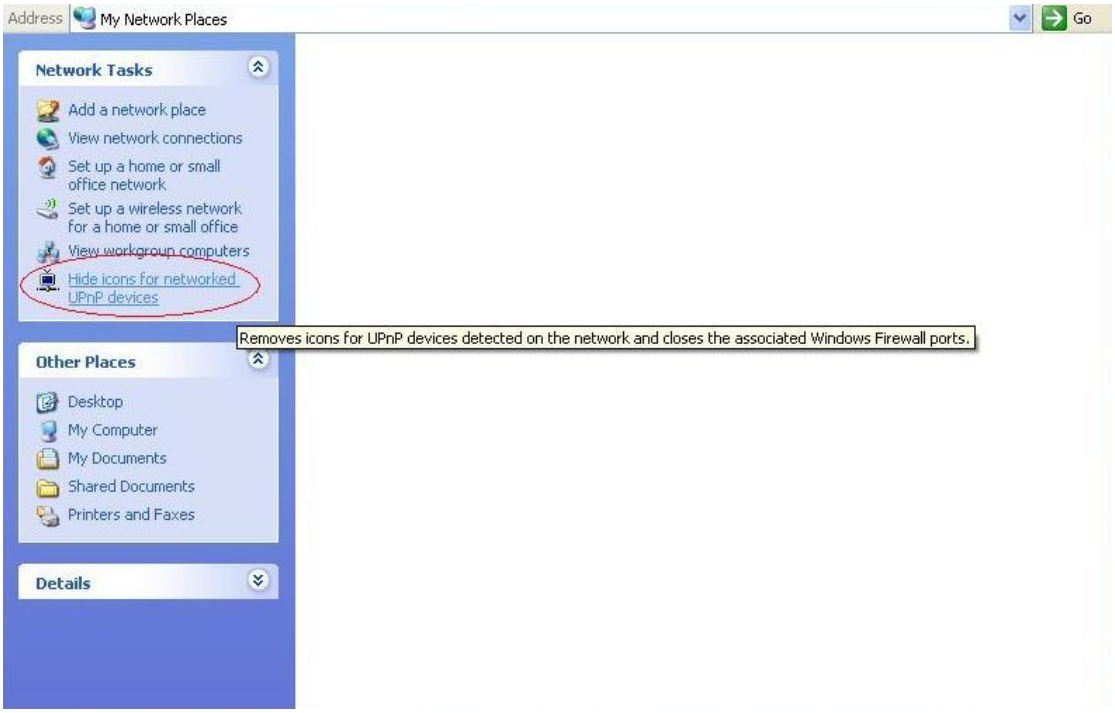
When the connection is successful, the login page will show up in the I.E. browser. The default username and password are both “**admin**”



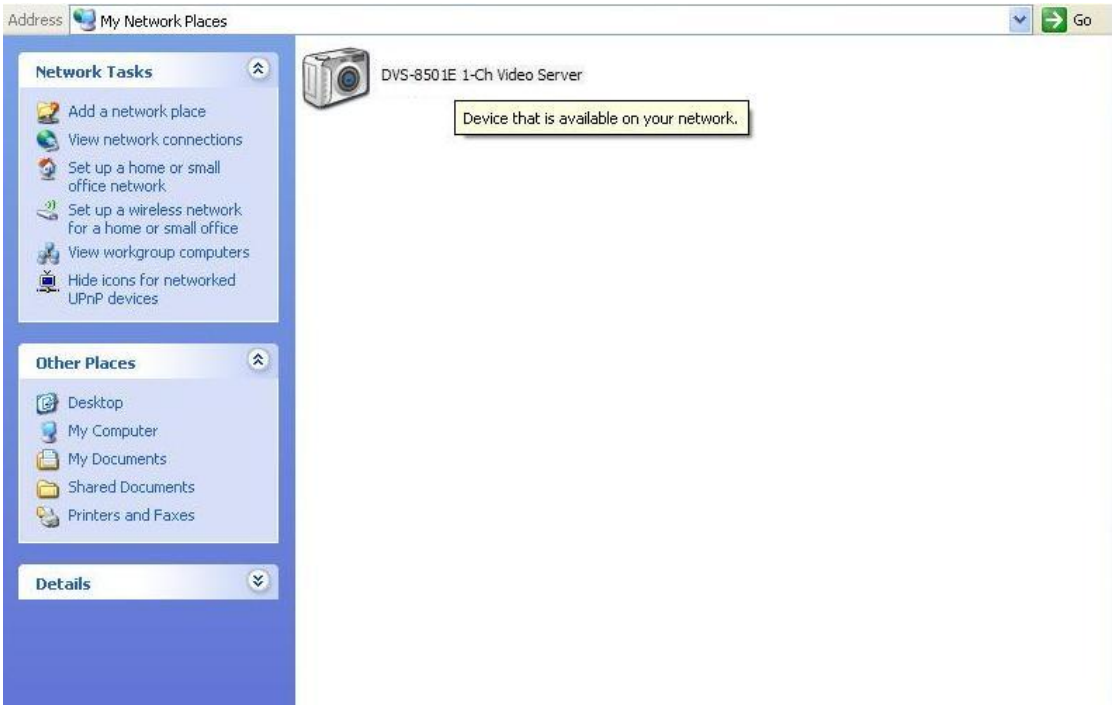
Note : Default username and password can be changed by clicking “Account” then clicking “Admin”

4.2. Windows UPnP

Open the Windows UPnP in “My Network Places” to show the detected UPnP devices normally. (Refer to the red circle in the below picture)

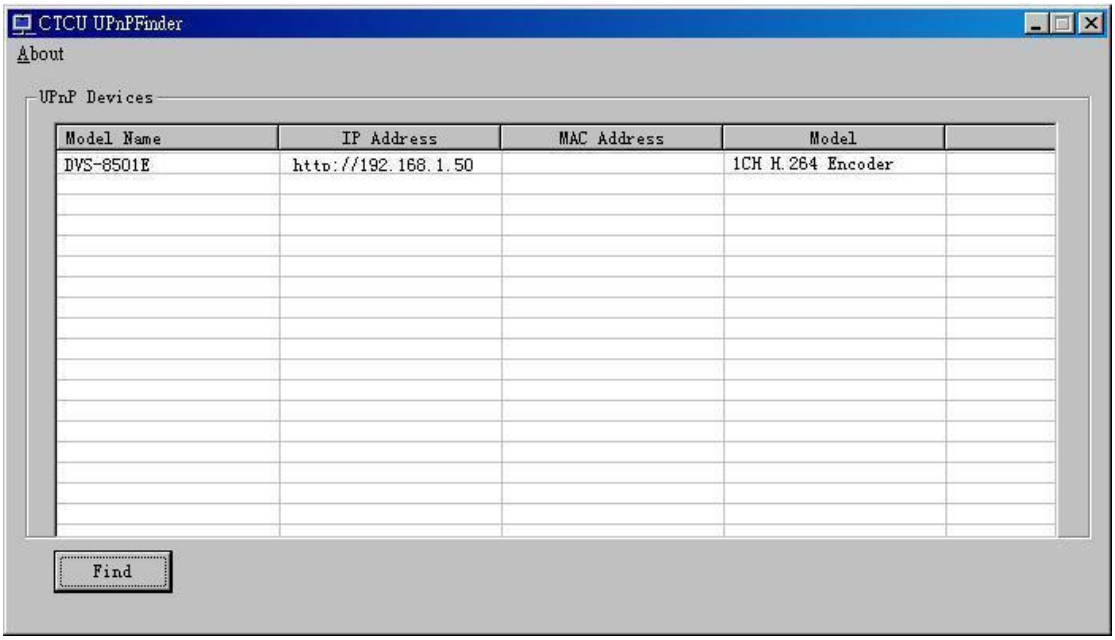


When the DVS is connected to the LAN properly, the Windows UPnP will show the corresponding icon in the list.



4.3. CTCU UPnP Finder

Besides Windows UPnP, CTC Union also has a UPnP Finder that can help to detect the UPnP devices that are connected to the network.

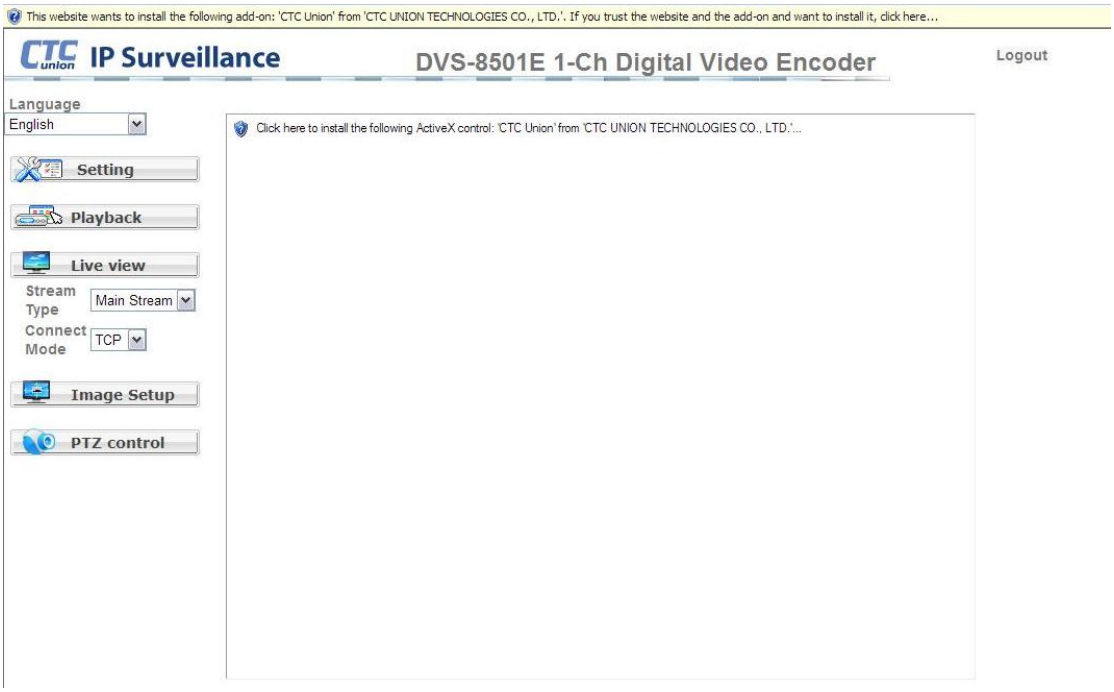


5. HOME PAGE SETTING

5.1. Live View

5.1.1. ActiveX Installation

The first time the DVS is accessed though I.E. browser, users have to install the add-on ActiveX for the normal activation of the ActiveX viewer. Execute the I.E. and log in the DVS, users will find a slight yellow bar indicated the reminder of ActiveX installation. Click on the bar and allow the install.


This website wants to install the following add-on: 'CTC Union' from 'CTC UNION TECHNOLOGIES CO., LTD.'. If you trust the website and the add-on and want to install it, click here...
IP Surveillance
DVS-8501E 1-Ch Digital Video Encoder
Logout
Language
English
Click here to install the following ActiveX control: 'CTC Union' from 'CTC UNION TECHNOLOGIES CO., LTD.'...
Setting
Playback
Live view
Stream Type
Main Stream
Connect Mode
TCP
Image Setup
PTZ control

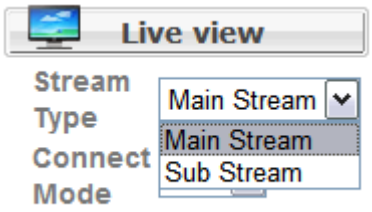
After allowing the ActiveX download, a dialog will show up several seconds later. Click on “Install” to start the installation of the ActiveX.

Note : ActiveX is only supported in Microsoft Internet Explorer. If you use any other browser (Firefox, Chrome, etc.) to open the DVS configuration page, it will not be capable of displaying any video stream.

Internet Explorer - Security Warning
Do you want to install this software?
Name: CTC Union
Publisher: CTC UNION TECHNOLOGIES CO., LTD.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

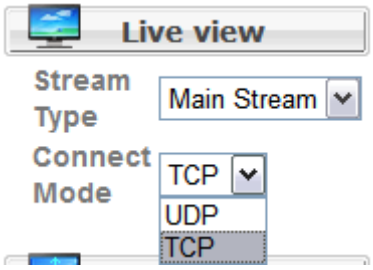
After the installation is completed, users are able to see the ActiveX Viewer interface. (Please refer to 5.1.4. ActiveX Viewer)

5.1.2. Main / Sub Streaming



Choose to watch “Main Stream” or “Sub Stream” here from the dropdown list. For Main Stream and Sub Stream set up, please refer to Chapter 6.3.

5.1.3. TCP / UDP Connection

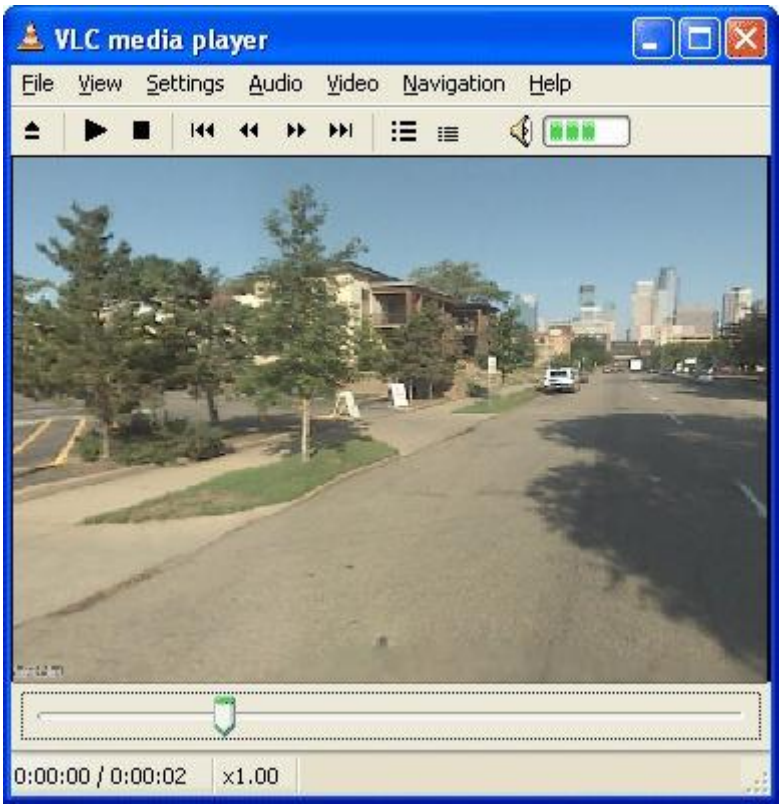


Choose “UDP” or “TCP” connect mode here from the dropdown list

5.1.4. ActiveX Viewer

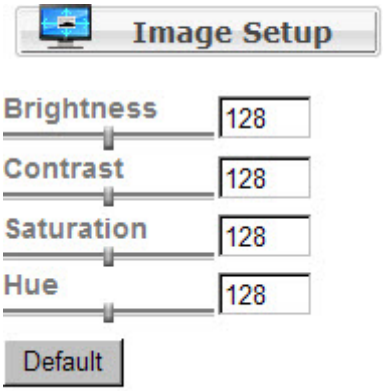
Above is the ActiveX viewer which will show up when users use I.E. Browser to access the video of DVS-8501E

5.1.5. RTSP Viewer Support



Users can also use other media players to play the RTSP stream. We recommend using VLC media player to watch the RTSP stream because VLC can support the H.264 video compression format. Users can freely download VLC player by browsing to VLC official website http://www.videolan.org/vlc/

5.2. Image Setup



Move the slider to setup brightness, contrast, saturation, and hue. Click on the “Default” button to go back default setting.

5.3. PTZ Control

Click these directional buttons to control PTZ camera.

Click “Set” to add a camera preset point. Click “Go” to direct camera to preset points.

Click “Set” to select patrol mode. Click “Go” to patrol. Before using this feature, please go to “Setting” → “Advance” → “Patrol” to set the patrol mode.

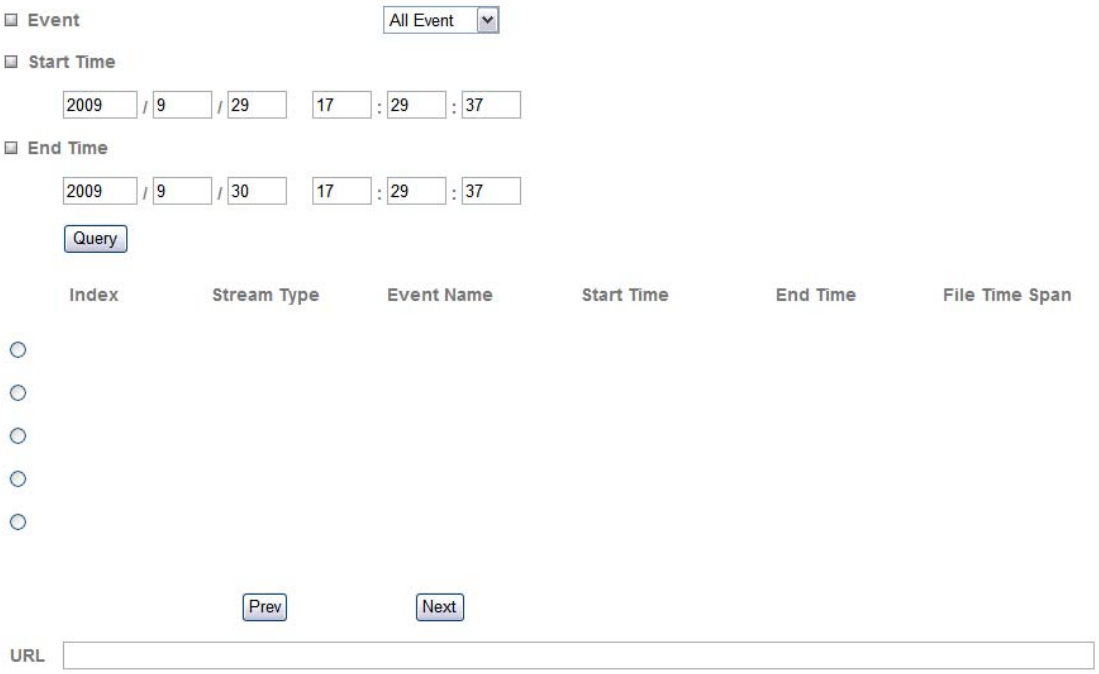
Adjust camera focus.

Adjust camera zoom in or out.

Please refer to Chapter 7.1 for detailed PTZ control set up.

5.4. Playback

Look up recorded video by channel, event, and period time.



Selecting the event, setup the demand period, and then click on “Query”. Users can get the video record that fits the search condition for playback.

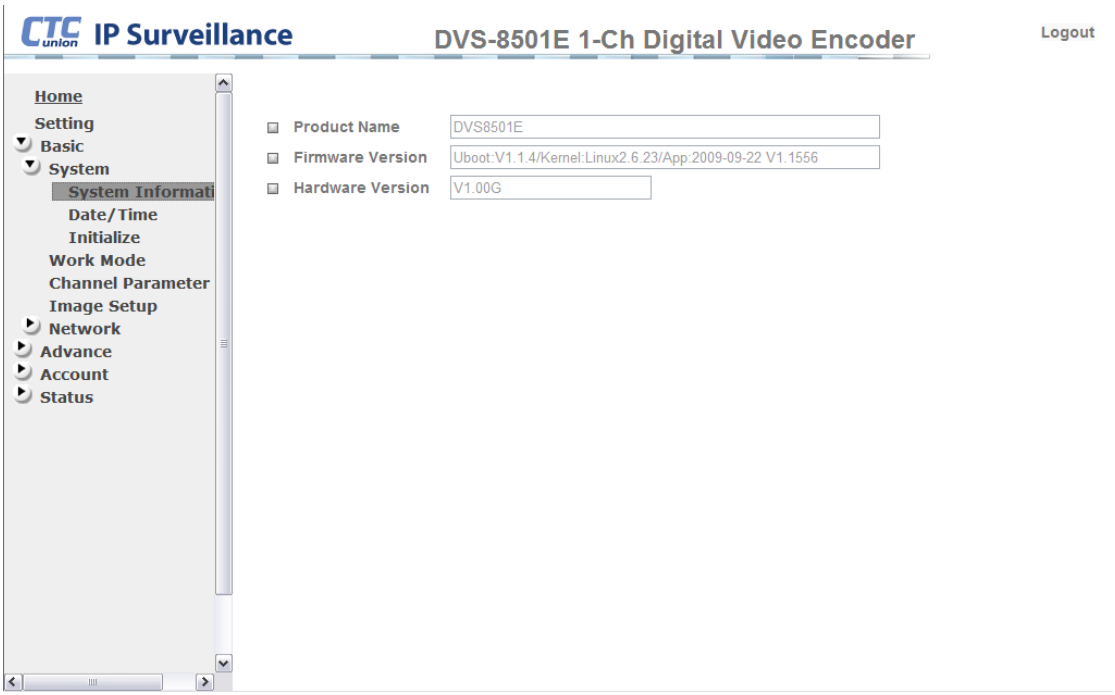
6. BASIC SETTING

There are four settings in this sub-menu, including “System”, “Work mode“, “Channel parameter” and “Network”

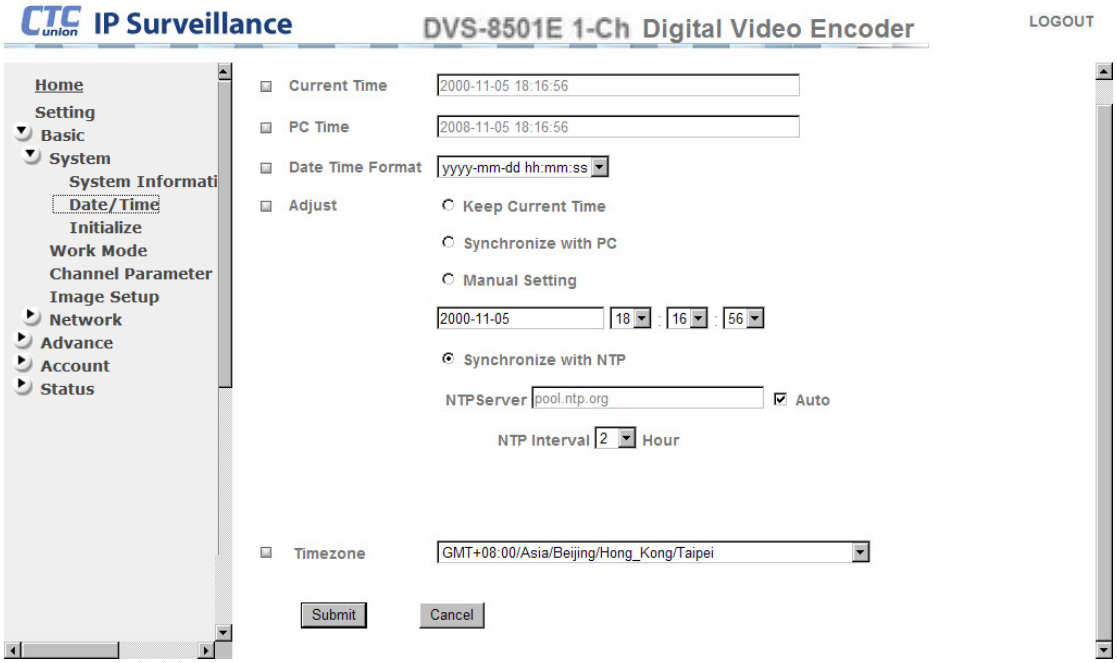
6.1. System

6.1.1. System Information

This page includes information on “Product name”, “Firmware Version”, and “Hardware version”.

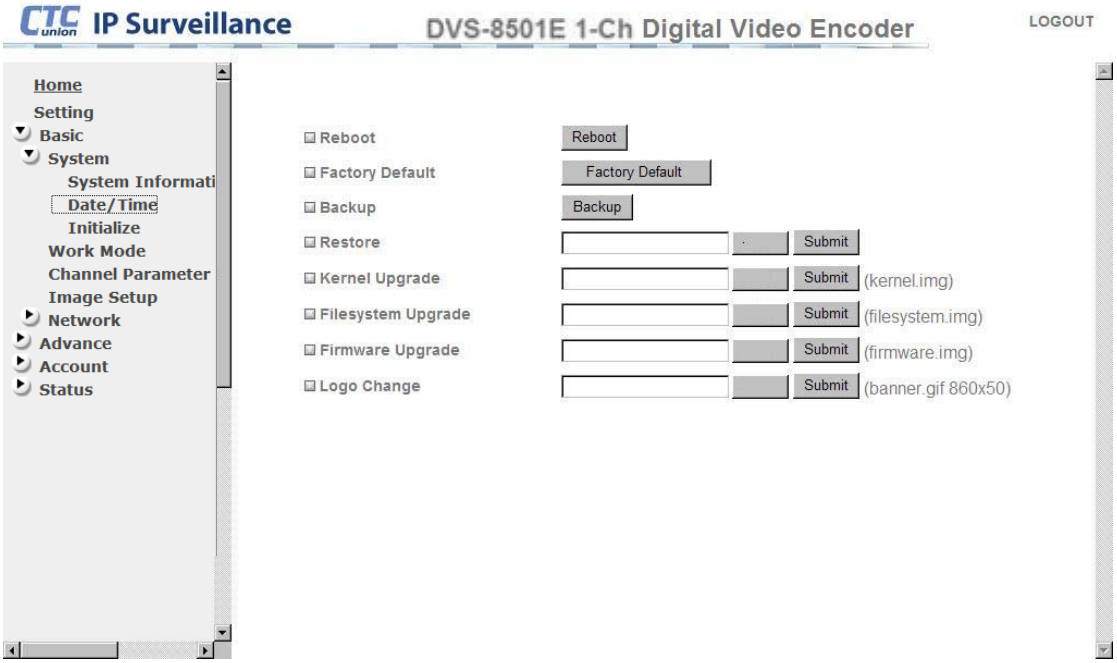


6.1.2. Date/ Time



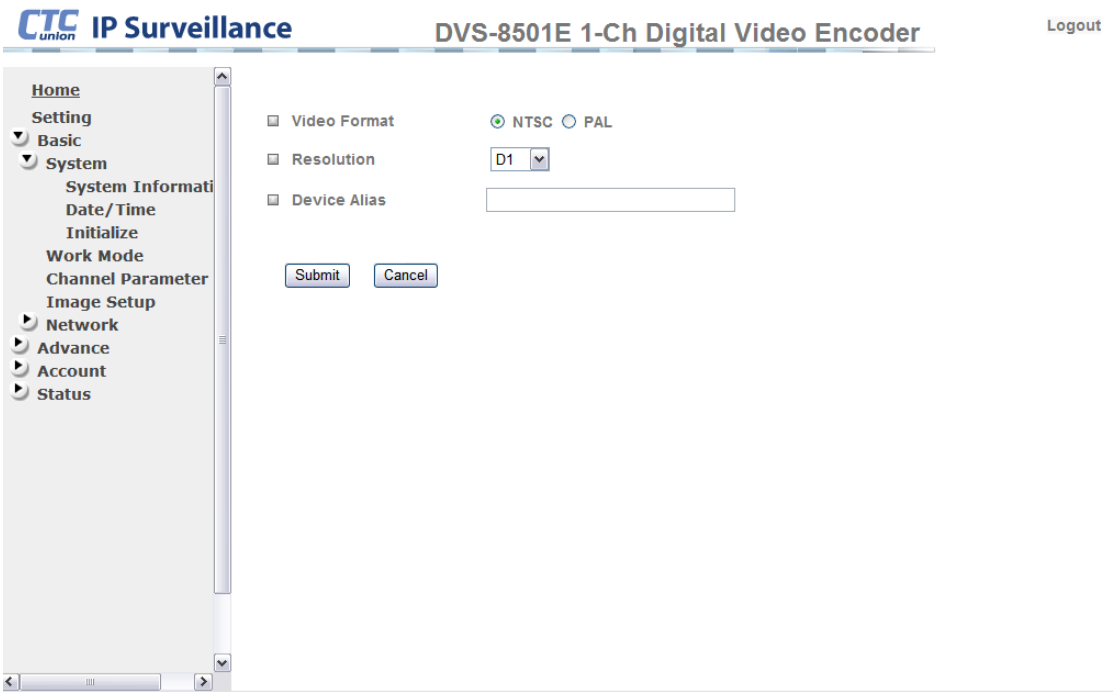
- Current time**:** Shows the current time of this device.
- PC Time**:** Shows the current time of controlling PC.
- Date Time Format**:** Select the display format for time. For example : yyy-mm-dd hh : mm : ss (Year - Month - Day Hour : Minute : Second)
- Adjust**:** Four ways to update server time.
  - Keep Current Time**:** Remain device current time.
  - Synchronize with PC **:** Synchronize with controlling PC
  - Manual Setting**:** Select this mode to manually adjust the date and time of this device.
  - Synchronize with NTP : Refresh interval to synchronize the date and time of this device with those of the time server, known as NTP (Network Time Protocol) server
  - NTP Server**:** Input NTP server name or IP address. No more than 64 characters.
- Time zone**:** Choose time zone and time difference from Greenwich Mean Time in the area where the device is installed from the pull-down box.

6.1.3. Initialize



- Reboot: Click this button to reboot the device.
- Factory default: Click this to get back factory defaults. After reset, server will reboot automatically.
- Backup: Click to save a config file on PC.
- Restore: Click to restore a config file from PC to server. All settings can be restored to a previous state.
- Kernel upgrade: Click to upgrade device kernel.
- File system upgrade: Click to upgrade device file system.
- Firmware update: Click to upgrade firmware.
- Logo Change: Click to change homepage logo. Please use 850x50 gif formats to replace old one.

6.2. Work mode



6.2.1. Video format

Video format: Select NTSC or PAL.

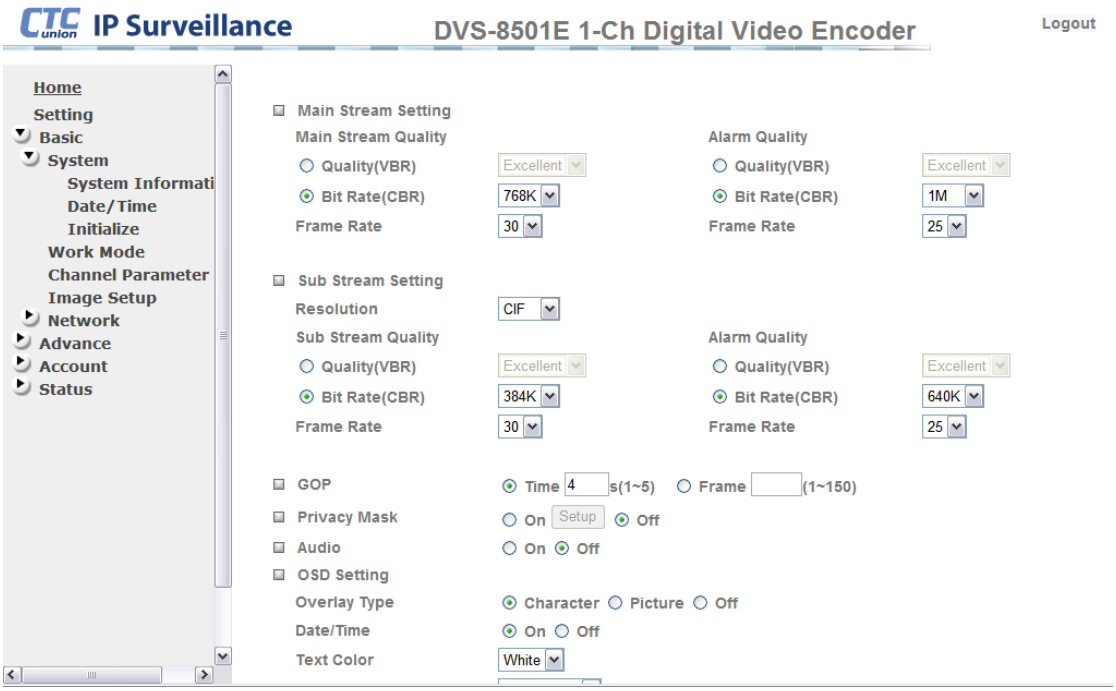
6.2.2. Resolution

Resolution : Click pull-down menu to choose resolution.(CIF,D1 or 2CIF)

6.2.3. Device Alias

Type device alias to define device name.

6.3. Channel parameter



6.3.1. Main stream setting

Main Stream Quality:

VBR (Variable bit rate) – Bit rate is variable depending on video quality.

CBR (Constant bit rate) –Fix video bit rate.

Frame Rate:

Set picture transferred per second. Maximum is 25 frames in PAL mode or 30 frames in NTSC mode.

Alarm Quality : All parameter are the same above.

6.3.2. Sub stream setting

Sub stream Setting: All parameter have same meaning as with main stream.

6.3.3. GOP

Group of pictures: Establishes the gap when a fixed image(i-frame) appears by amount of time or number of frames.

6.3.4. Privacy mask

Privacy Mask: To activate select “on”, and then click “setup”. This will hide the selected region from normal view.

6.3.5. Audio

Audio: Turn on or off audio.

6.3.6. OSD Setting

OSD (On screen display) Setting:

Overlay Type: Turn on or off overlay text.

Date/ Time: Turn on or off date stamp shown on screen.

Text Color: Choose OSD text color.

Background Color: Choose background color of OSD.

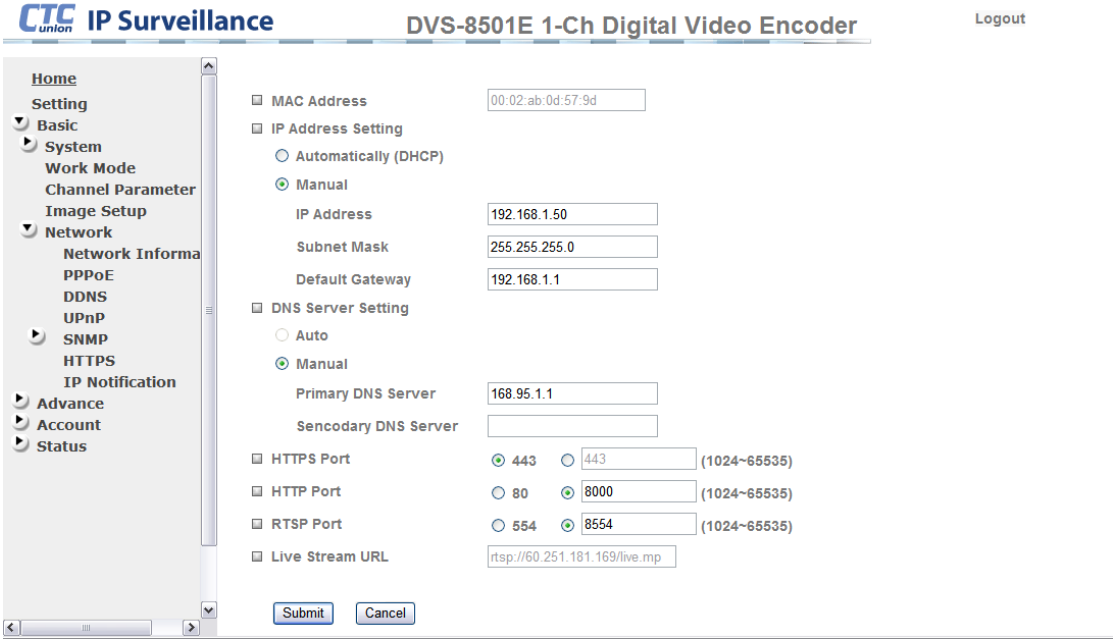
Alias: Channel alias

OSD Picture: Upload the pictures for on screen display

Display Position: Text display position on screen.

6.4. Network

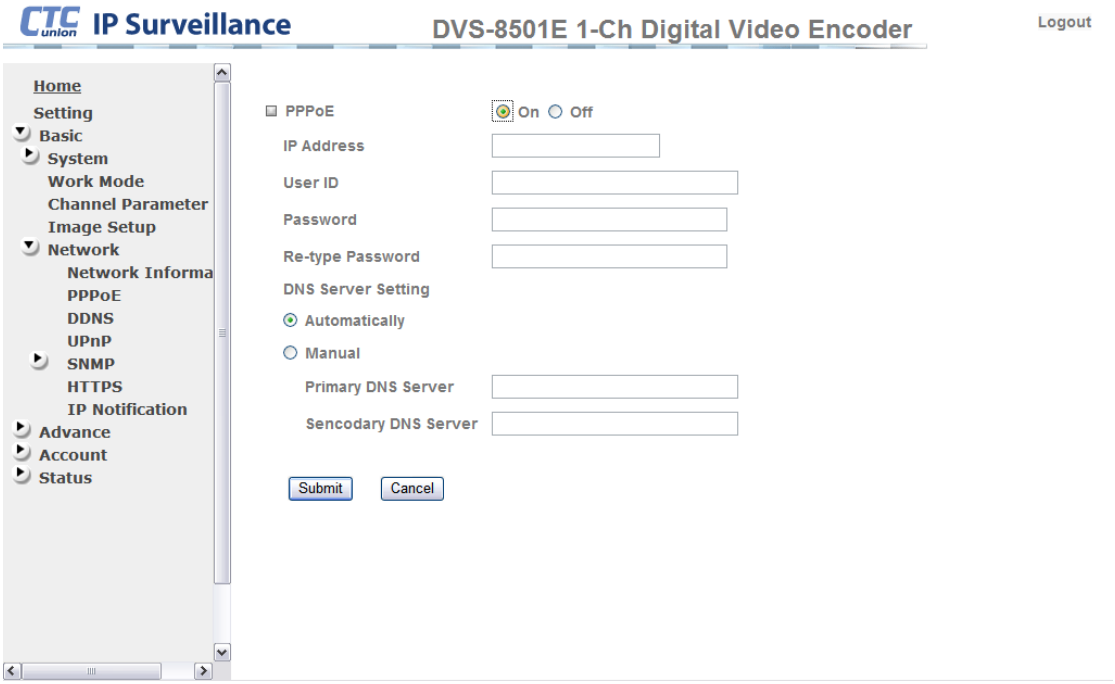
6.4.1. Network Information



- MAC address: Shows the device MAC address. (not user changeable)
- IP Address Setting:
  - Automatically(DHCP) : Set device to DHCP client mode
  - Manual: Manually set IP, subnet and default gateway.
- DNS Server Setting
  - Auto: Get DNS server IP automatically via DHCP.
  - Manual: Set DNS IP manually.
  - Primary DNS: Input primary DNS server IP address here.
  - Secondary DNS: Input secondary DNS server IP address here.
- HTTPS Port: Set to connect by default https port 443 or range 1024~65535.
- HTTP Port: Set to connect by default http port 80 or range 1024~65535.
- RTSP Port: Set to connect by default http port 554 or range 1024~65535.
- Live Stream URL: Provide the URL address for user link.

6.4.2. PPPOE

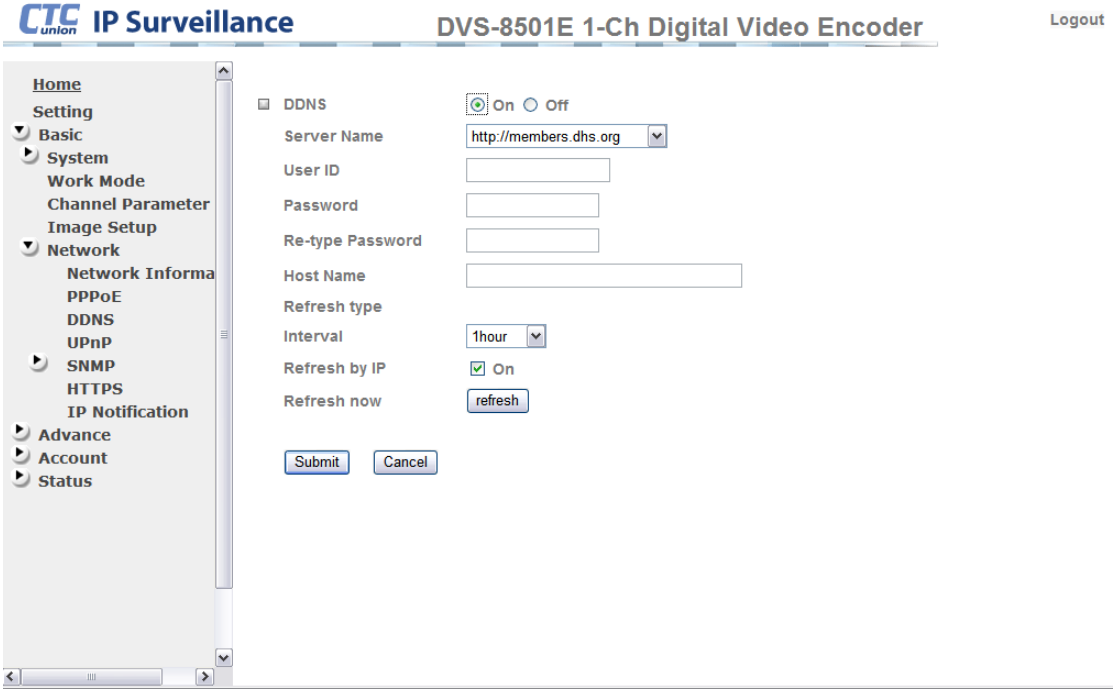
Set to connect to Internet by PPPoE.



- IP address : Read-only. IP address from PPPoE service.
- User ID : PPPoE username ID. Usually get from ISP.
- Password : PPPoE authentication password. Usually get from ISP.
- Re-type Password: Re-enter the password for confirmation
- DNS Server
  - Automatically : Get DNS IP automatically.
  - Manually : Set DNS IP manually.
    - Primary DNS : Input primary DNS server IP address here.
    - Secondary DNS : Input secondary DNS server IP address here.

6.4.3. DDNS

This allow device to have DDNS domain name. Encoder will notify a dynamic domain name server to change mapping IP in real time (ad-hoc), the active DNS configuration of its configured hostnames, addresses or other information.

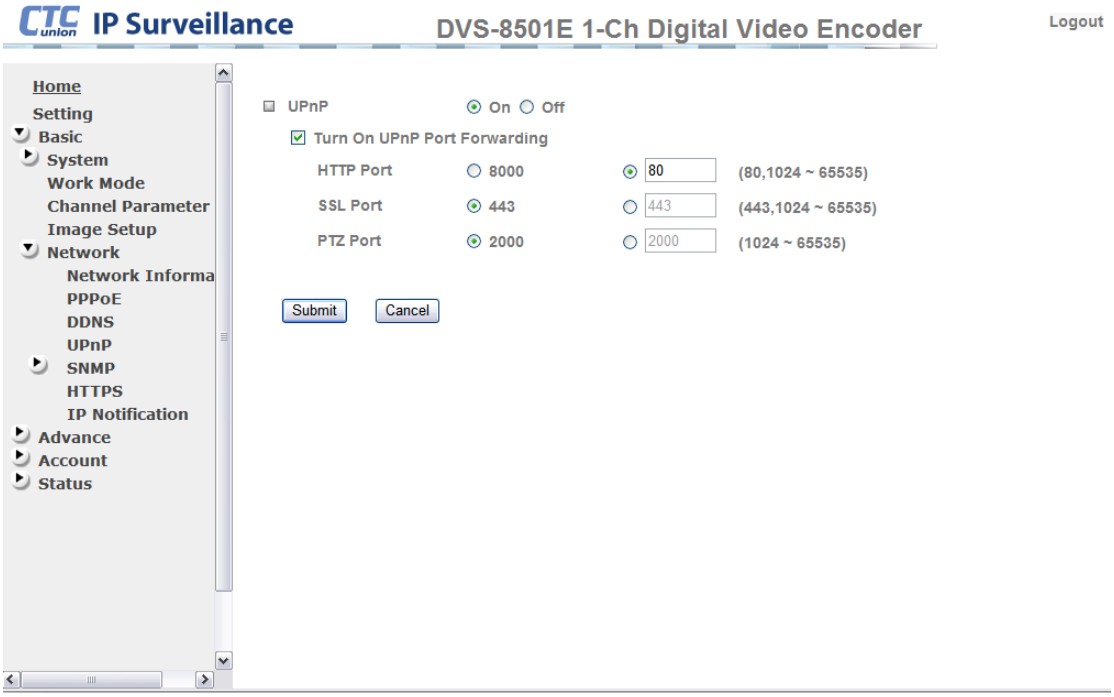


- Server name : Select a DDNS server from Pull-down menu.
- User ID: Input DDNS ID for DDNS server.
- Password: DDNS authentication password.
- Re-type Password: Re-enter the password for confirmation
- Host name: Hostname which is registered on DDNS server.
- Interval: Interval time of renew IP with DDNS Server
- Refresh by IP: Refresh IP when IP is changed
- Refresh now: Refresh the IP upon clicking on this button

Note: Before using this function, you must register an account from DDNS service provider such as dyndns.org.

6.4.4. UPnP

UPnP helps user to find this machine easily on a Windows LAN. It will open service ports on local LAN UPnP router. It allows easier access to this device from the Intranet.



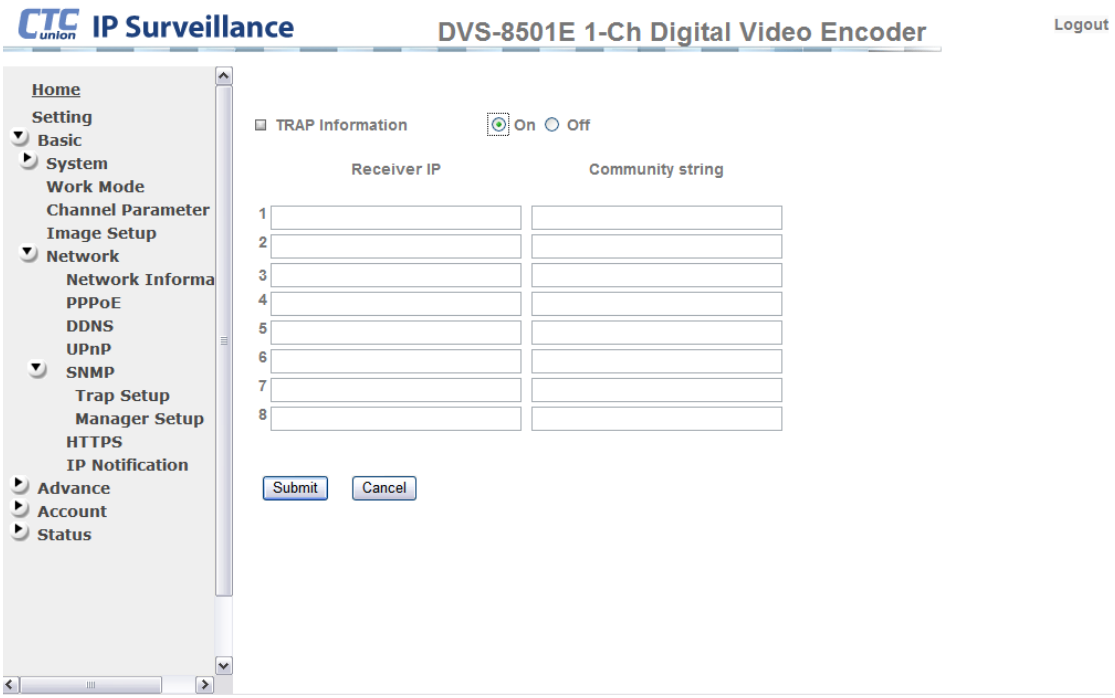
- HTTP port: HTTP connected port. Use the default 80 or set manually (from 1024 to 65535)
- SSL port: Https security connection port setting. Use the default 443 or set manually. (from 1024 to 65535)
- PTZ Port: Input PTZ connection port (from 1024 to 65535)

Note: Each port cannot be duplicated.

6.4.5. SNMP

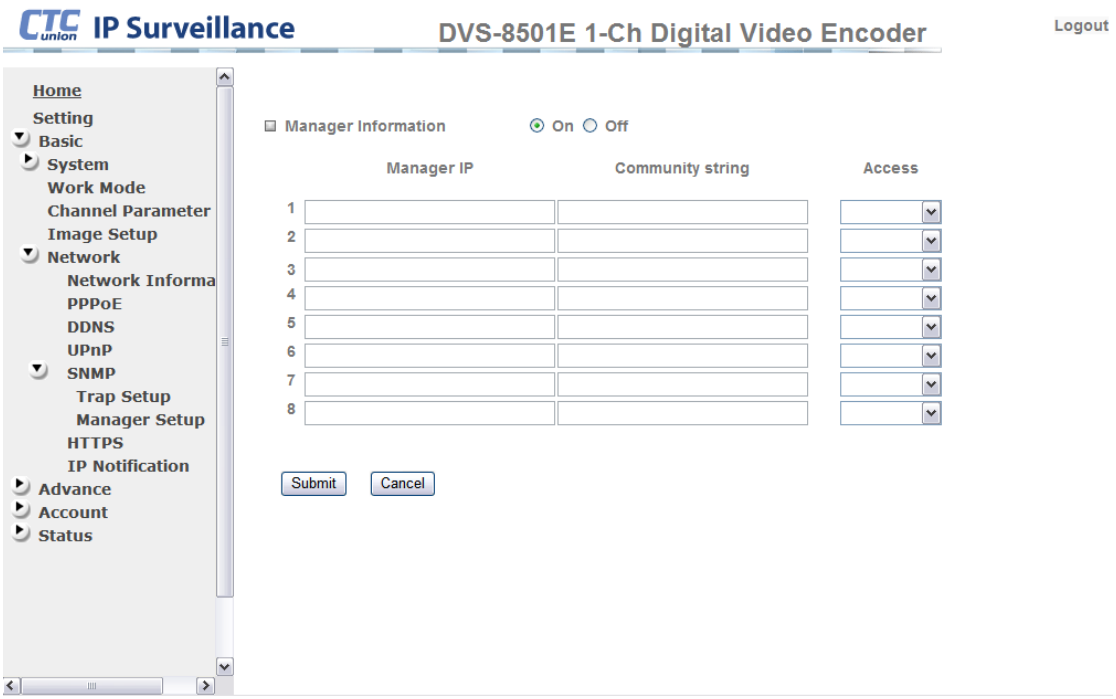
Simple **N**etwork **M**anagement **P**rotocol (**SNMP**) is a widely used protocol for monitoring the health and welfare of network equipment.

SNMP_TRAP



- Trap Information: Turn on or off SNMP service.
- Receiver IP: SNMP information receiver IP.
- Community string: Input SNMP server string to communicate with SNMP manager.

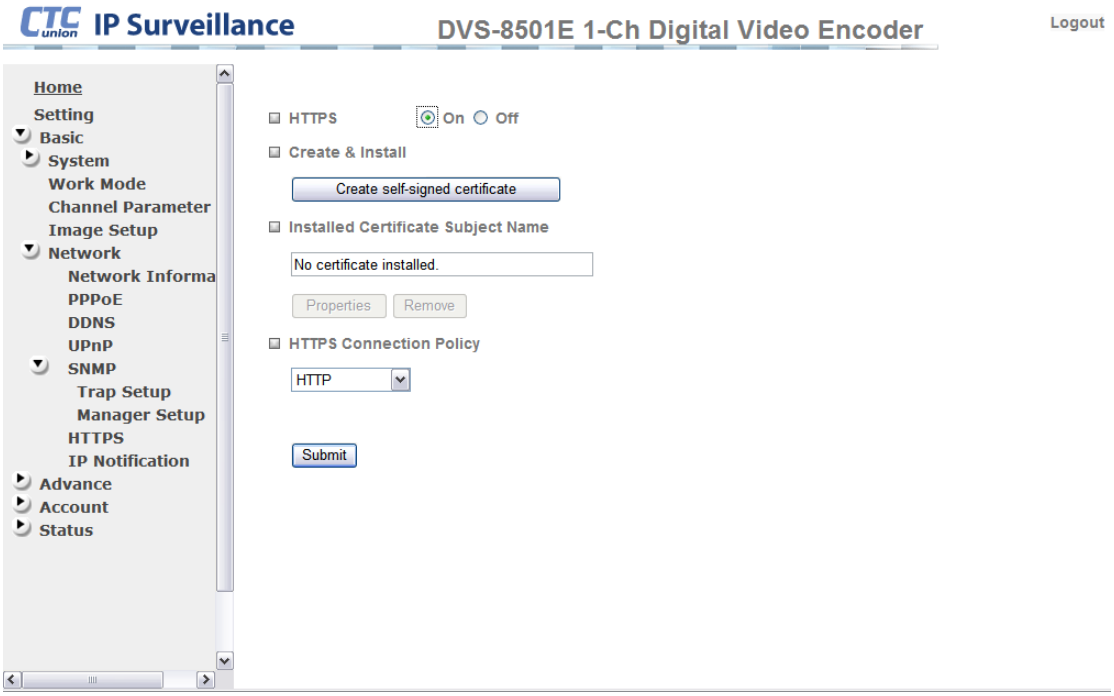
SNMP_MANAGER



- Manager IP: Input SNMP manager's IP address.
- Community string: Input SNMP community string to communicate with SNMP manager.
- Access: Let user “read” or “read and write” on device.

6.4.6. HTTPS

Https is a URL scheme used to create a secure HTTP connection via SSL. It is syntactically identical to the http: // scheme normally used for accessing resources using HTTP. Select “on” to start to setup.

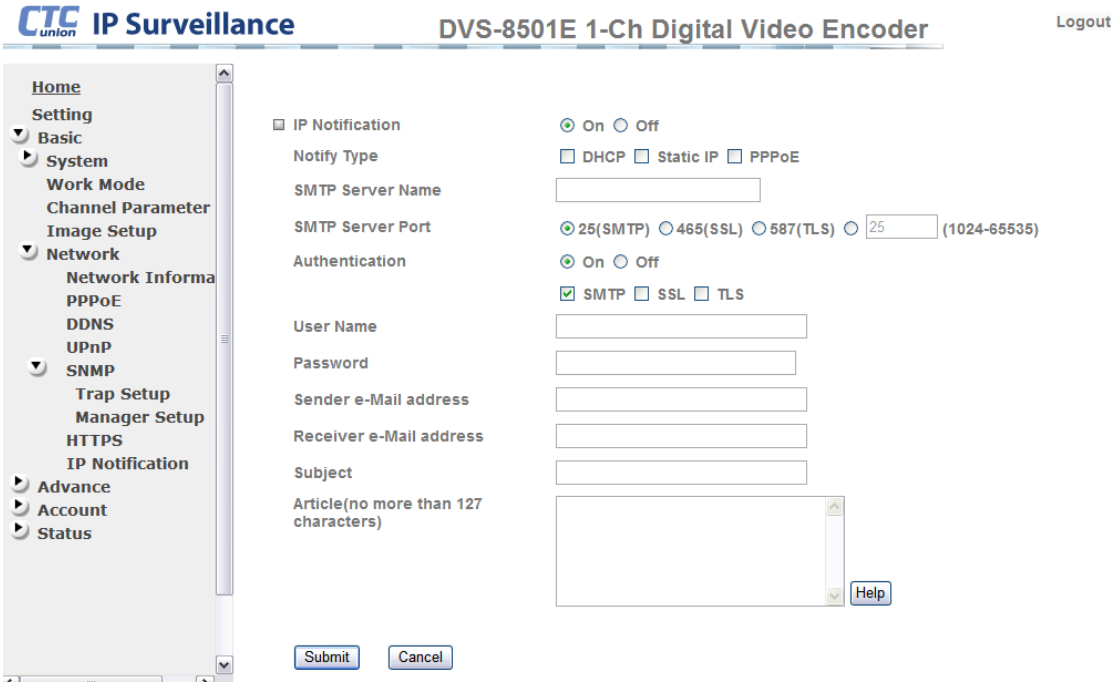


- Create & install : Click “create self-signed certificate” to create a certificate
- Installed Certificate Subject Name: show or remove certificate.
- HTTPS connection policy: Three policies can be choosing. (HTTP, HTTPS, HTTP&HTTPS)

Note: Because the DVS uses a self-signed certificate and not a certificate signed by a certificate authority, browsers will complain when connecting that the certificate cannot be trusted. In most cases, the user can let the browser bypass the certificate authority check. Once connected, the data is still securely transmitted between the DVS and computer host with 128bit encryption.

6.4.7. IP Notification

Notify user by E-mail, when device is using a new IP. Select “on” to turn on.



- Notify Type: Select which condition to send notification.
- SMTP Server name: Input SMTP server name or IP address here.
- SMTP server port : Use default SMTP port or user-defined (range 1024~65535)
- Authentication: Select authentication type according to your SMTP server (mail server).
- User Name: Input sender's Name here.
- Password: Input sender's Password here.
- Sender mail address: Input sender's E-mail address here.
- Receiver mail address: Input receiver’s E-mail address here.
- Subject : Edit the mail subject
- Article: Edit the text of the mail

7. ADVANCED SETTING

7.1. PTZ Setting

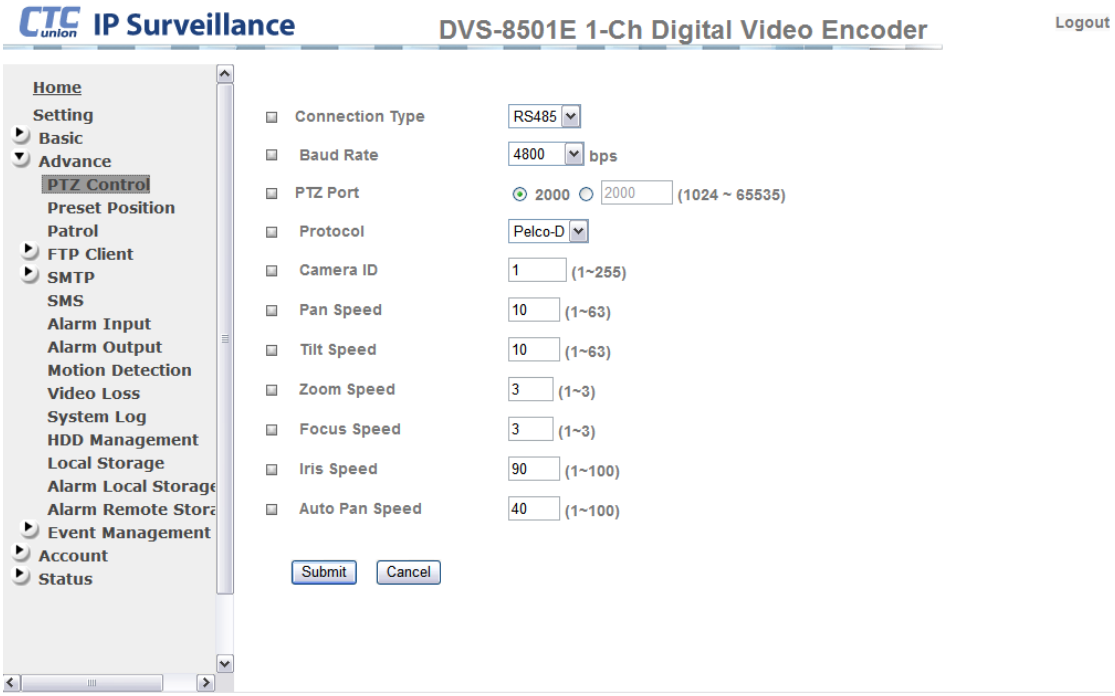
7.1.1. PTZ Connector

8501E PTZ Pin assignment allocation (DB9)

No.	Define	Color
1	DI	Red
2	RS-232 TX	Yellow
3	RS-232 RX	Green
4	RS-485（A）+	Blue
5	GND	Purple
6	DO	Brown
7	GND	Gray
8	RS-485（B）-	White

7.1.2. PTZ Control

This page lets user setup PTZ parameters.



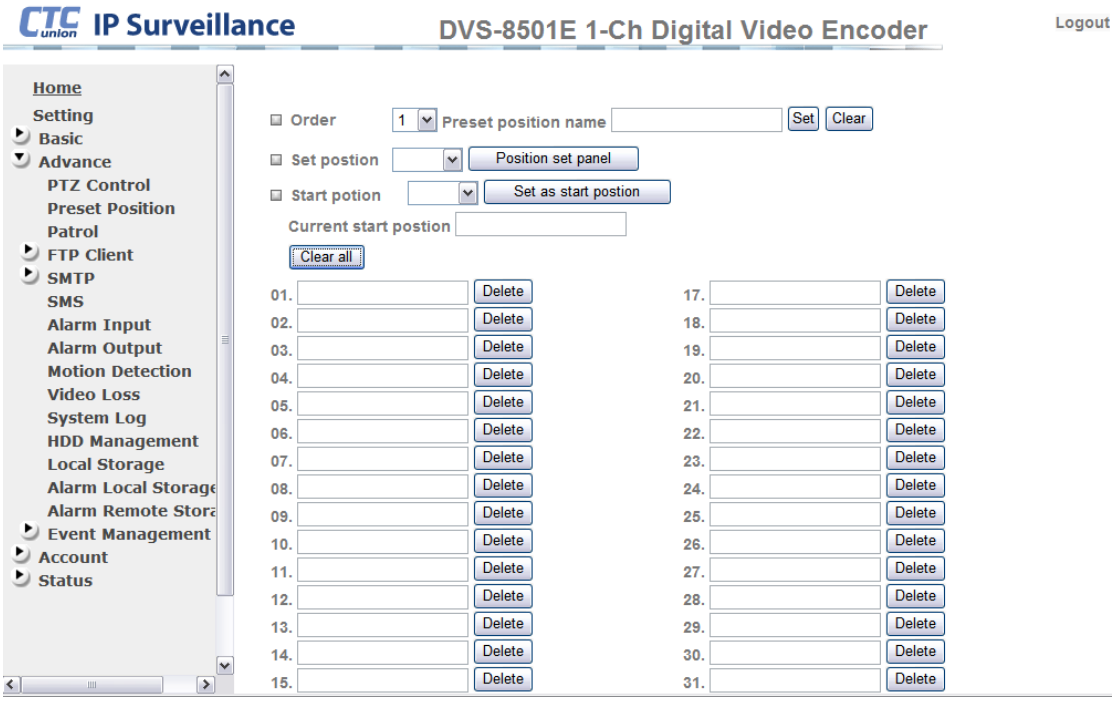
- Connection type: Select connection type according to interface.
- Baud Rate: Choose the demanded baud rate from the pull-down menu.
- PTZ Port: Enter the demanded PTZ control port here. The default

value is 2000.

- Protocol: Select camera protocol. Please refer to user manual of camera.
- Camera ID: PTZ camera ID. Please refer to user manual of camera.
- Pan Speed : PTZ camera pan speed (range 0~63).
- Tilt Speed : PTZ camera tilt speed (range 0~63)
- Zoom speed : PTZ camera zoom speed (range 0~3)
- Focus speed : Focus speed of camera (range 0~3).
- Iris speed : Adjust Iris speed of camera (range 0~100)
- Auto Patrol speed : Adjust auto patrol speed (range 0~100)

7.1.3. Preset Position

Setup preset position of PTZ camera on each channel.

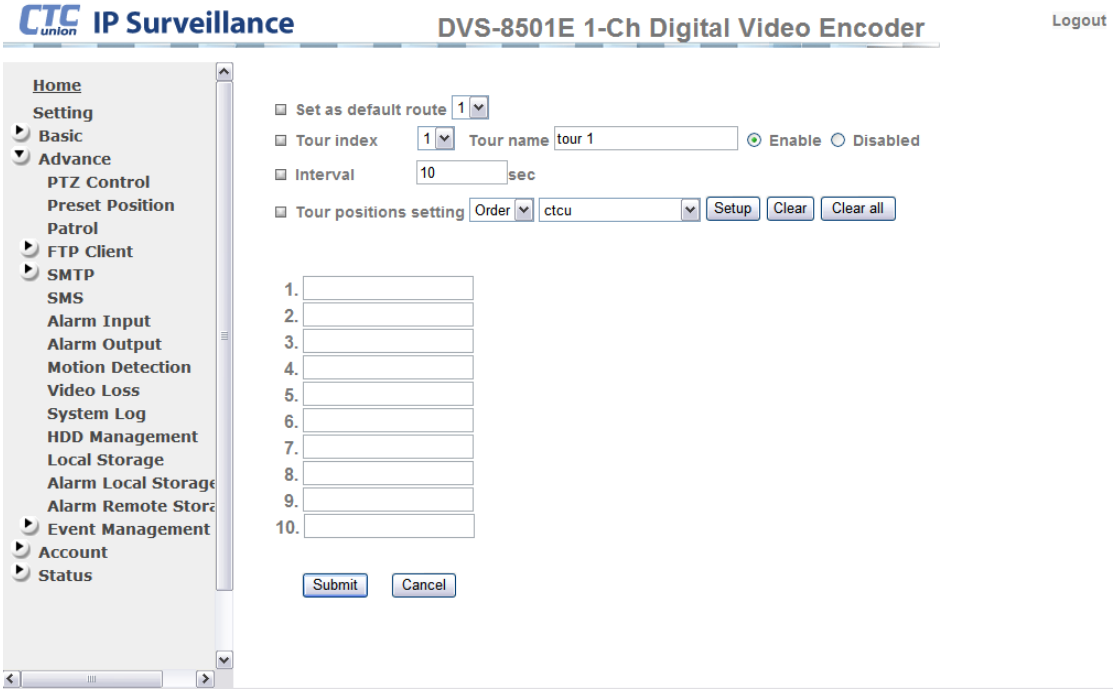


Preset Position setting up steps:

1. Order: Select the order of the preset position and name it then click on “Set”. The new added preset position will appear in the below correspondent # field.
2. Set position: choose the preset position in the pull-down menu then click on “Position set panel”. Set up the position at the set panel then click on “Submit”.
3. Remember to click “Submit” after making all the changes.
4. Start position: Choose any defined preset position as the start point of the patrol.
5. Clear all: By clicking on this button, the all settled preset position will be cleared.

7.1.4. Patrol

This page let user setup a patrol mode for the camera. Every channel has four patrol routes. Every route can consist of 8 preset points. Camera lens will move in order to the end.



- Set as default route : Choose a route number
- Tour index: Show the route number you are setting now.
- Tour name: Give a name for this tour.
- Interval: Time between each preset position.
- Tour positions setting: Click on “setup” to put it on the preset route.
- Remember to click “Submit” after any changes.

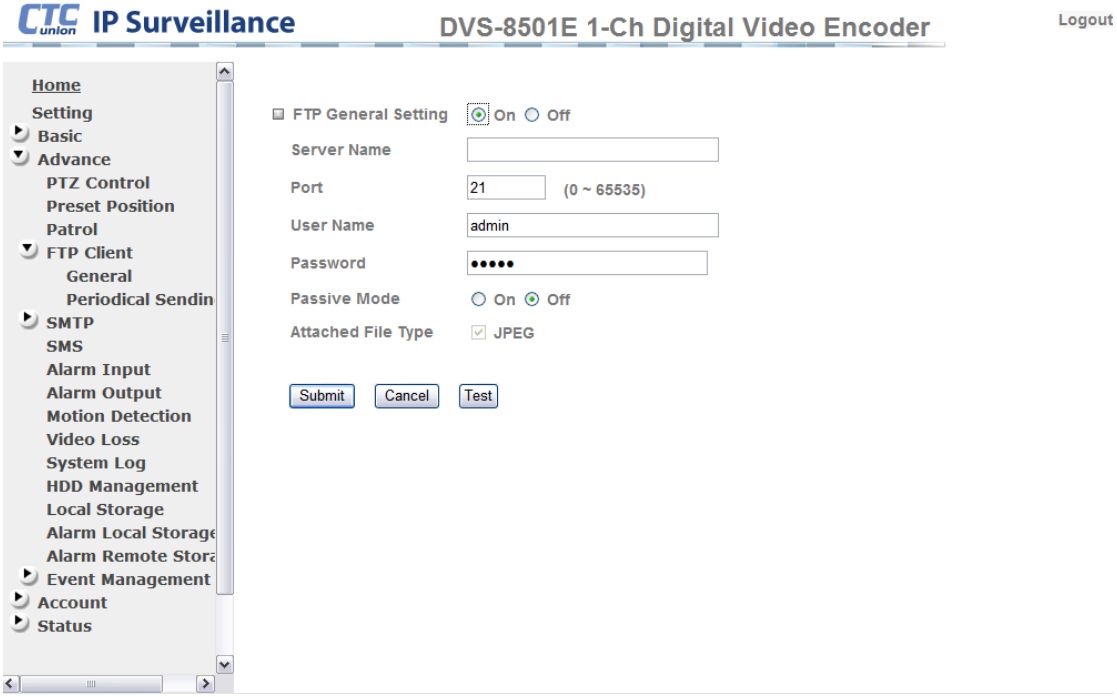
7.2. Alarm Configuration

7.2.1. Alarm Receiver Setting

7.2.1.1. FTP client

FTP client will send image files while alarms occur.

7.2.1.1.1. FTP General Setting

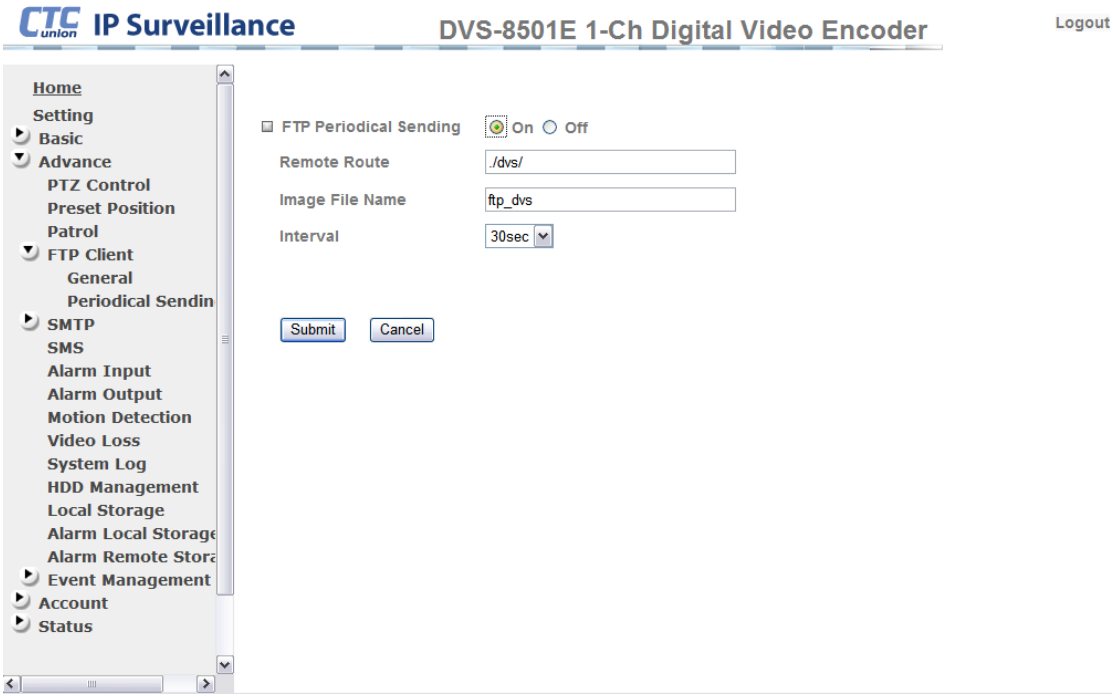


- FTP General Setting: Turn on or off this feature.
- Server name: Input FTP server name or IP address.
- FTP port : Input FTP server port, default is 21 (range 0~65535)
- User name: Input user name of FTP server.
- Password: Input password of FTP server.
- Passive Mode: If you are connecting to an FTP server with passive mode, please turn this on. Leaving off will connect with Active mode.
- Attached File Type: Check this box for sending “JPEG” file to FTP server when alarm is triggered.

Note: If there are any firewalls or NAT between the FTP client (DVS) and the FTP server, you should use Active mode FTP.

7.2.1.1.2. Periodical Sending

Send images file to FTP server periodically.



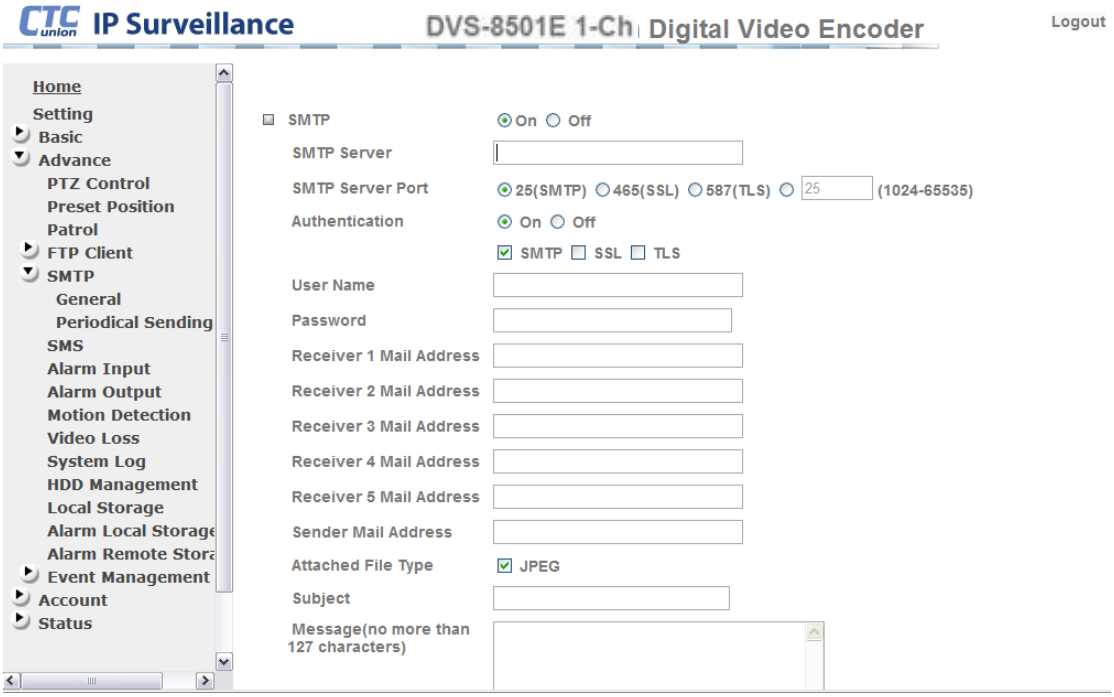
- FTP Periodical Sending: Turn this feature on or off.
- Remote Route: Folder path for sending image
- Image File Name: File name for sending to FTP server.
- Interval : Choose time interval for sending-files

Note: The FTP General settings must be configured before Periodic Sending will work.

7.2.1.2. SMTP

SMTP or Simple Mail Transport Protocol lets this device send image files to specific E-mail addresses.

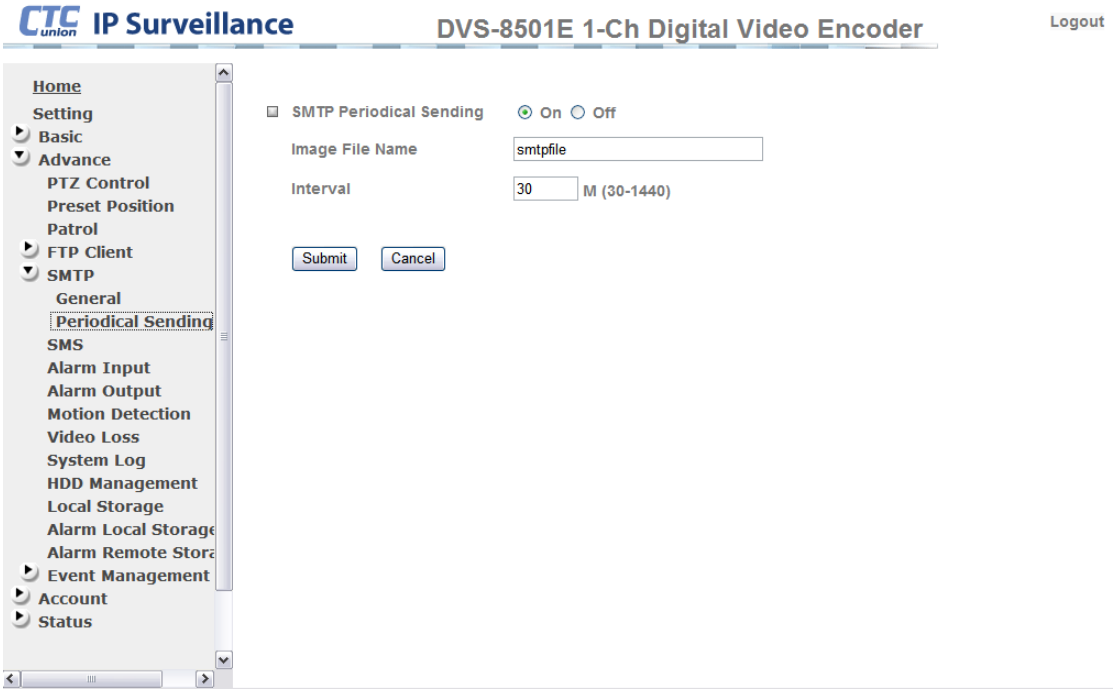
7.2.1.2.1. General



- SMTP: Turn this feature on or off.
- SMTP Server : Input the SMTP server name or IP address
- SMTP Server port : Use default SMTP port (25) or user-defined (range 1024~65535)
- Authentication: Select authentication type according to your SMTP server.
- User Name: Input the mail user name
- Password: Input the mail password
- Receiver mail address: There are five receiver settings available.
- Sender mail address: Used as mail "from" address.
- Attached File Type: Check this box for sending “JPEG” file as attachment.
- Subject : Edit the mail subject
- Message : Edit the mail text

7.2.1.2.2. SMTP Periodical Sending

Send image files to specific E-mail address periodically.

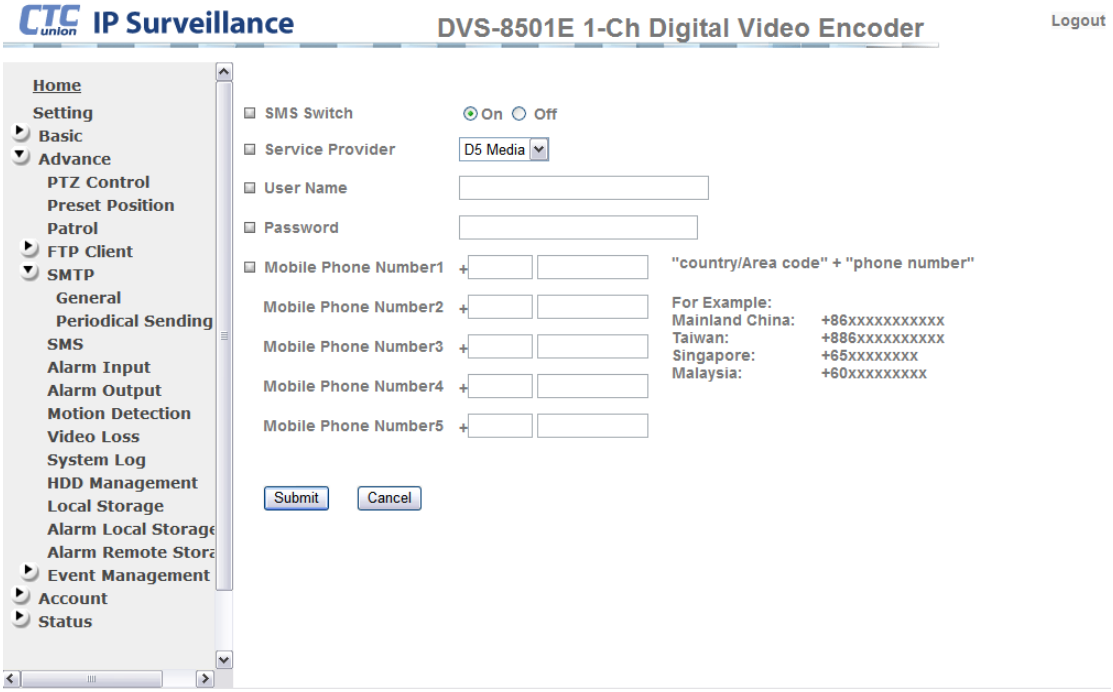


- SMTP Periodical Sending: Turn this feature on or off.
- Image File Name: Attached file name.
- Interval: Periodical mail interval time (Minute). Range from 30 minutes to 1440 minutes.

Note: The SMTP General settings must be configured before this function will work.

7.2.1.3. SMS

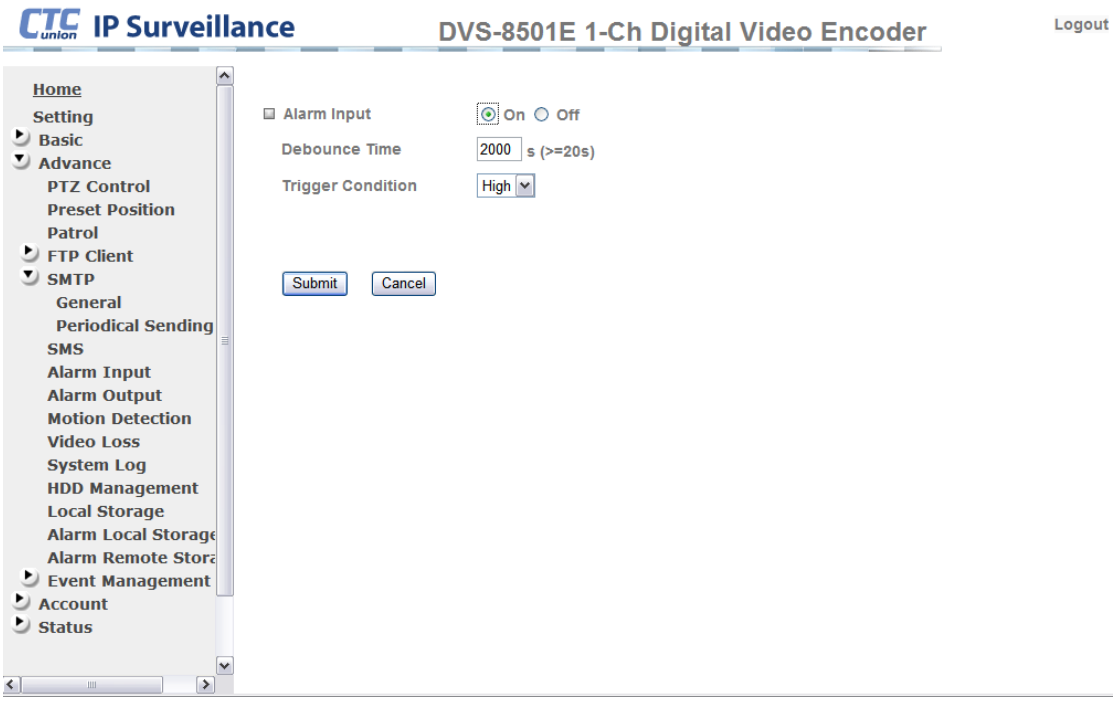
The SMS or Short Message Service sends messages to mobile devices.



- SMS switch: Turn this feature on or off.
- Service provider: The DVS-8501E supports **D5 Media** SMS vendor service only at time of writing.
- Username: Input account username required by SMS server.
- Password: Input SMS server account password.
- Mobile Phone Number: Can set up to 5 sets of mobile numbers for sent SMS messages.

7.2.2. Alarm I/O Setting

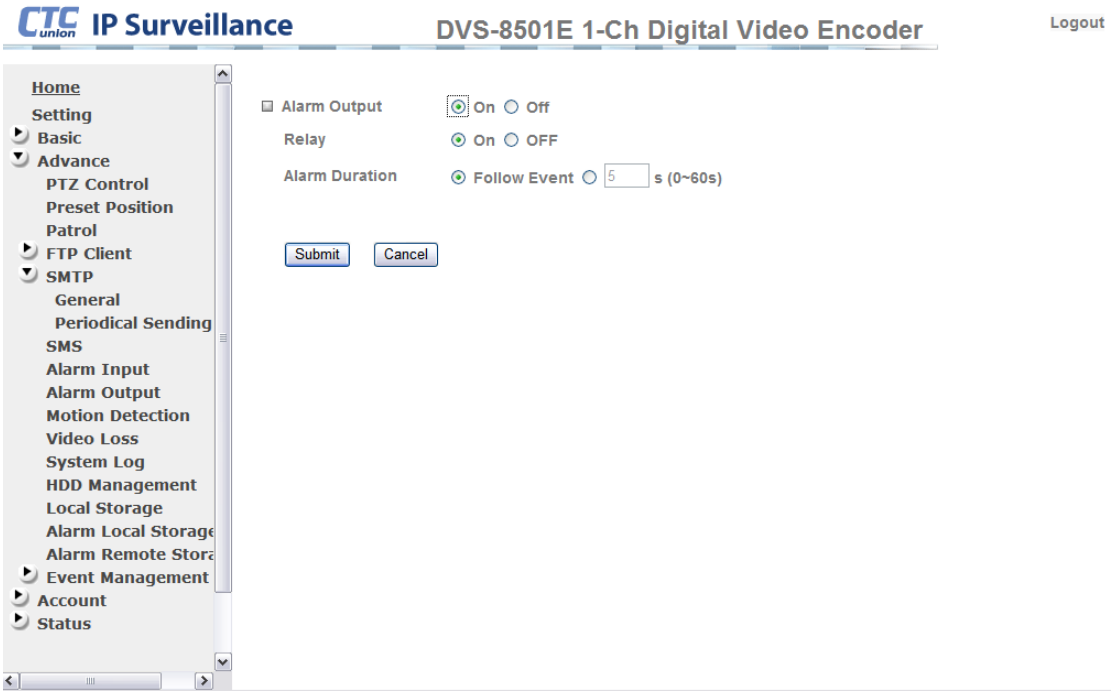
7.2.2.1. Alarm Input



- Alarm Input : Turn this feature on or off.
- Debounce Time : Interval time, range from 5 to 10 seconds.
- Trigger Condition: Trigger by High or Low electric potential. Please refer to the alarm sensor manual.

  Note: Alarm sensor will be electrically connected to the DVS DI (Digital Input) signal pins.

7.2.2.2. Alarm Output

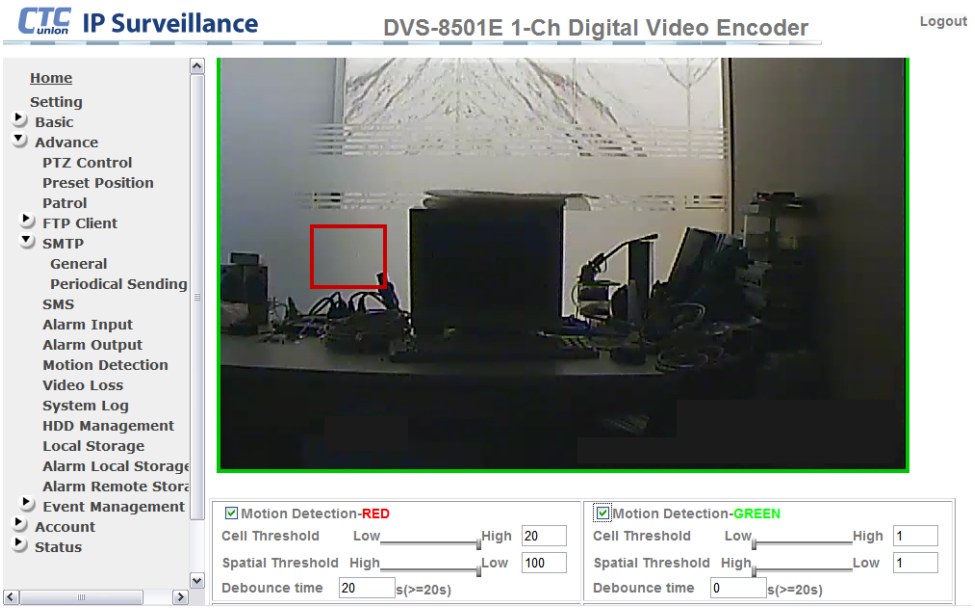


- Alarm Output: Select On or Off to active or deactivate this feature.
- Relay : Turn on or off the relay.
- Alarm Duration: For “Follow Event”, the alarm will continue until the event has ended. Or the durative may be set for 0~60seconds.

Note: Alarm device will be electrically connected to the DVS DO (Digital Output relay) signal pins.

7.2.3. Alarm Video Setting

7.2.3.1. Motion Detection



Up to 4 sets of Motion Detection areas can be defined (By color). When checking the demanded Motion Detection, the correspondent color frame will show up circling the player. Adjust the size and the location of frame directly through mouse dragging.

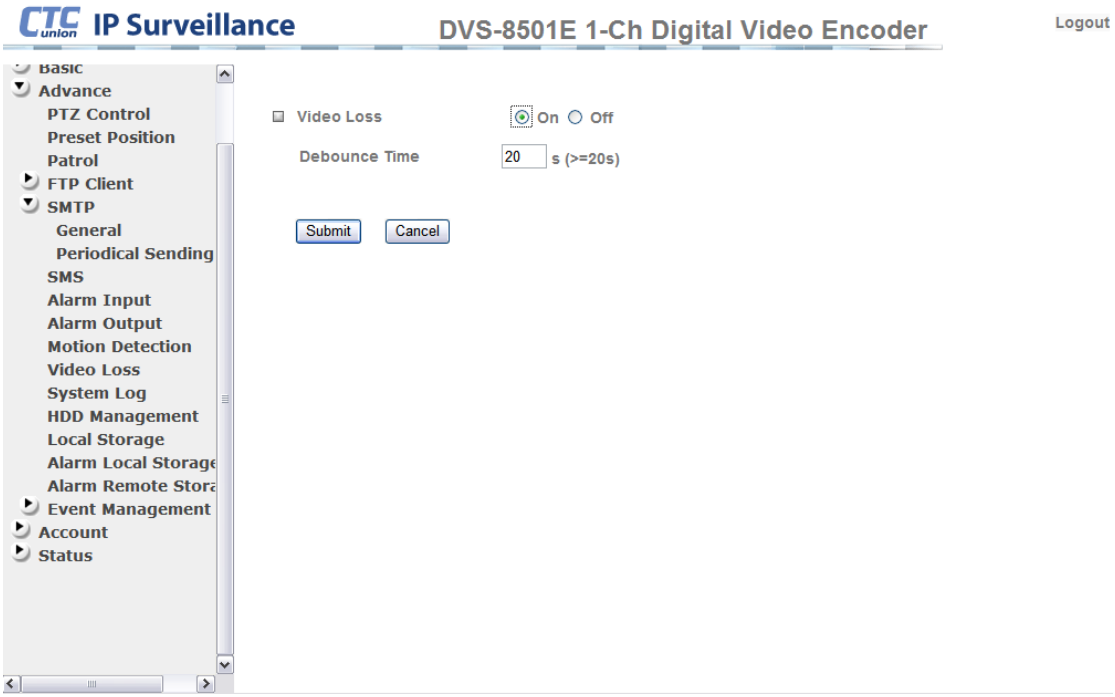
- Motion detection: Turn this function on or off.

- Cell Threshold: This parameter means the number of scan times in a period in the motion detection area. The higher (right side) the setting number is, the more scan is proceeding in a single period which means more "Sensitive". On the other hand, the lower (left side) the setting number is, the less scan is proceeding.

- Spatial Threshold: This parameter means the image alteration rate inside the motion detection area. The higher (left side) the setting number is, the higher the threshold of the motion detection activation and the harder the motion detection will be activated.

- Debounce time: means during the setting time, all the motion detection detected will be treat as same one detected event. For example, if you set it at the min. 20 seconds, there is one moving stuff trigger the motion detection event. In the following 20 seconds, even there are other stuffs trigger the same motion detection area, the user will receive the alarm only one time. This debounce time can prevent the user from receiving too many repeat alarms.

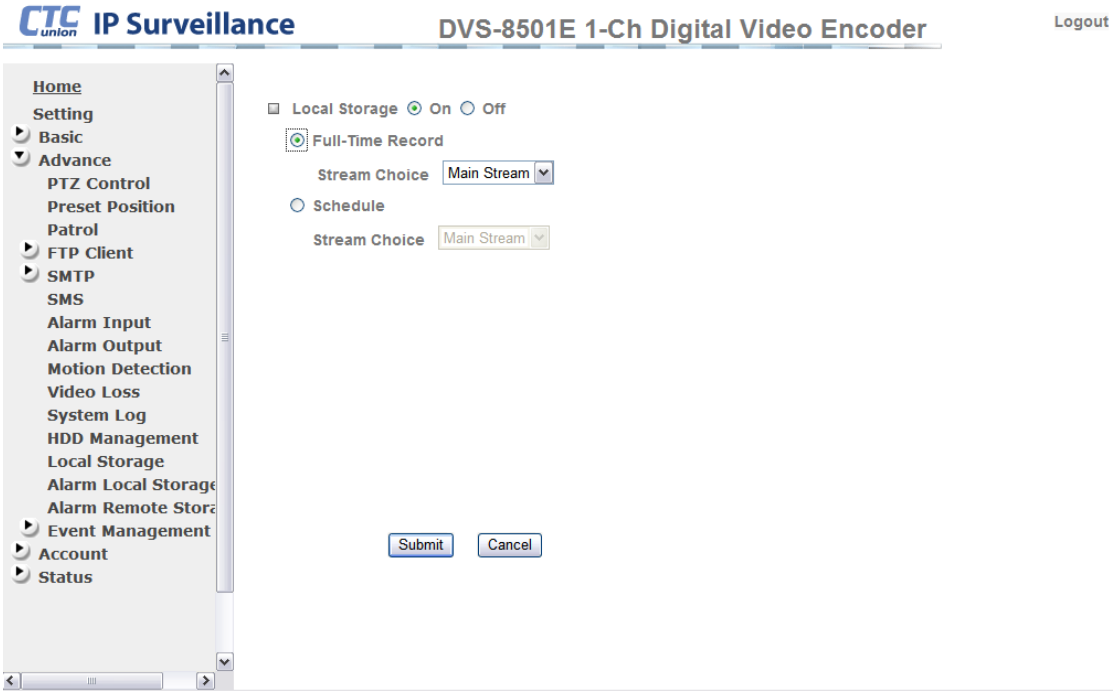
7.2.3.2. Video Loss



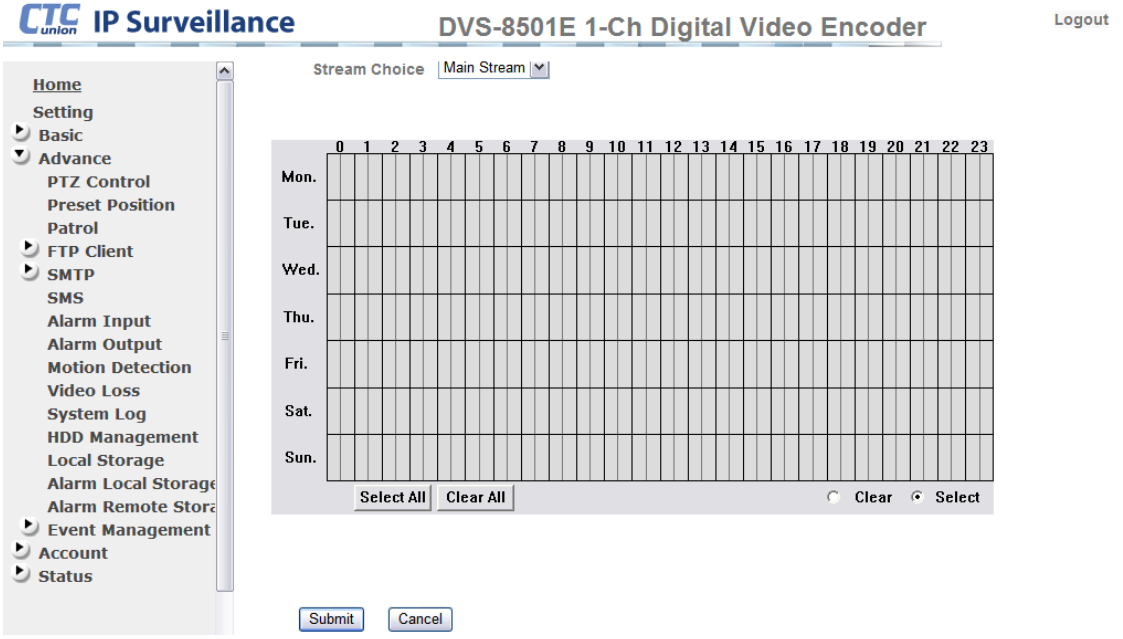
- Video Loss : Turn on to activate specific action when “video loss” occurs. Go to “Event Management” --> “Event Setting” to set action.
- Debounce Time : Video loss duration time.

7.2.4. Alarm Storage Setting

7.2.4.1. Alarm local recording



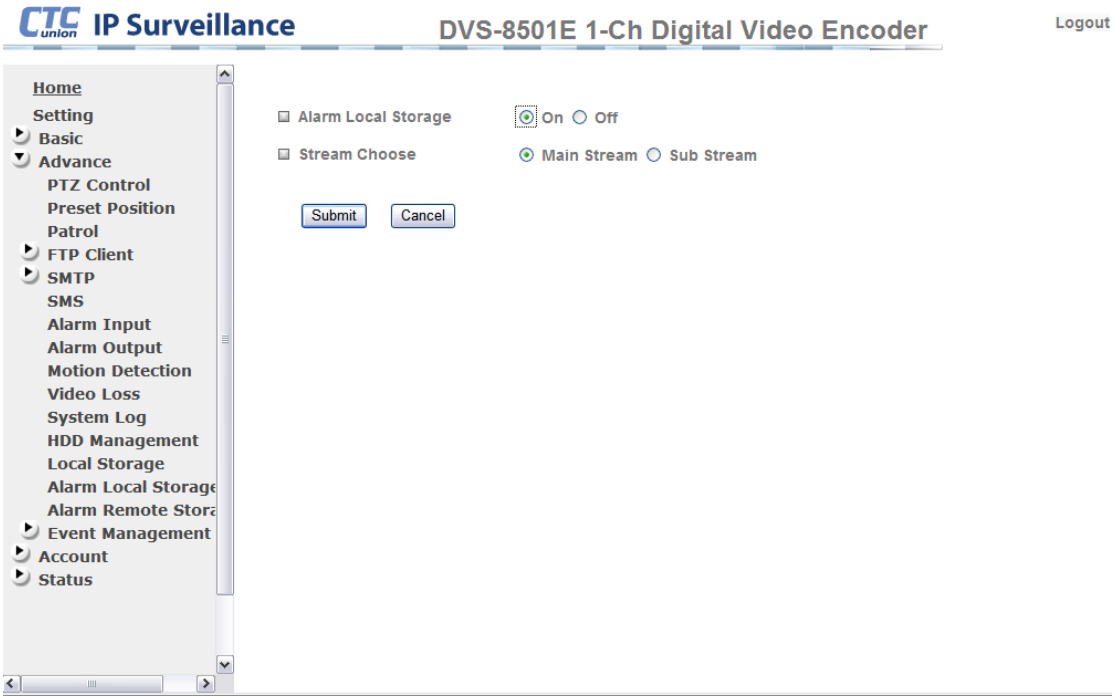
- Local Storage: Turn on or off this feature.
- Full-Time Record: Record whenever the device is operating. Choose to record Main Stream or Sub Stream from the pull-down menu.



- Schedule: Click and drag on the schedule frame to appoint the scheduled record times graphically.

7.3. Alarm Local Storage

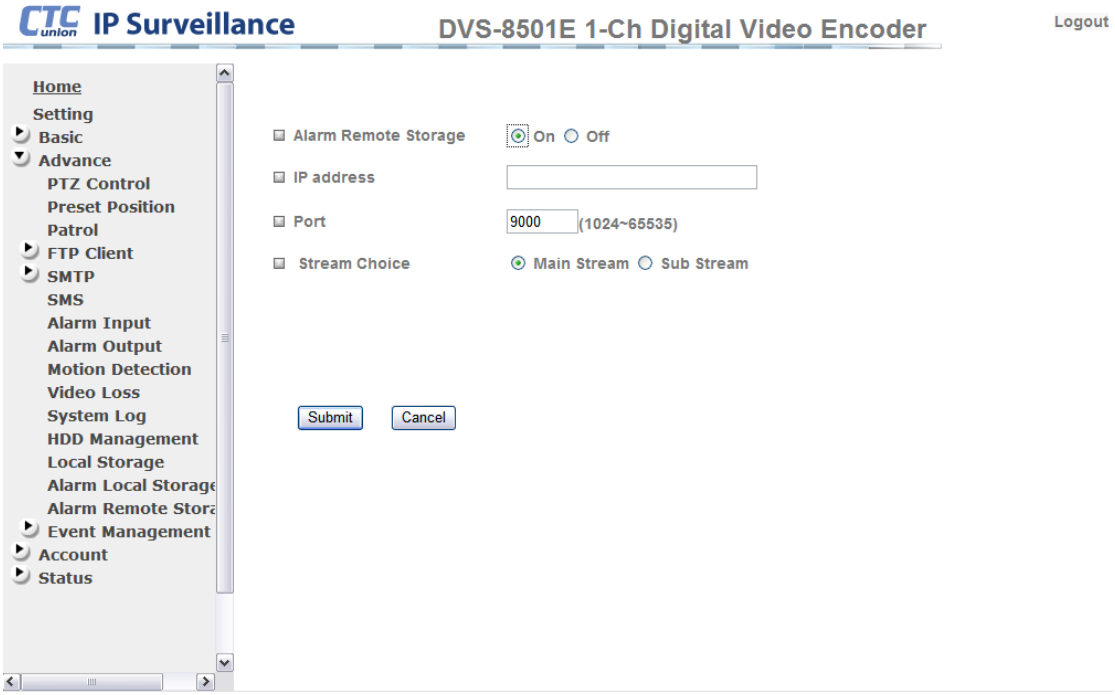
Save video to local storage device when alarm event occurs.



- Alarm Storage: Turn on or off this feature
- Stream Choose: Choose to store Main Stream or Sub Stream in the local storage device.

7.3.1.1. Alarm Remote Storage

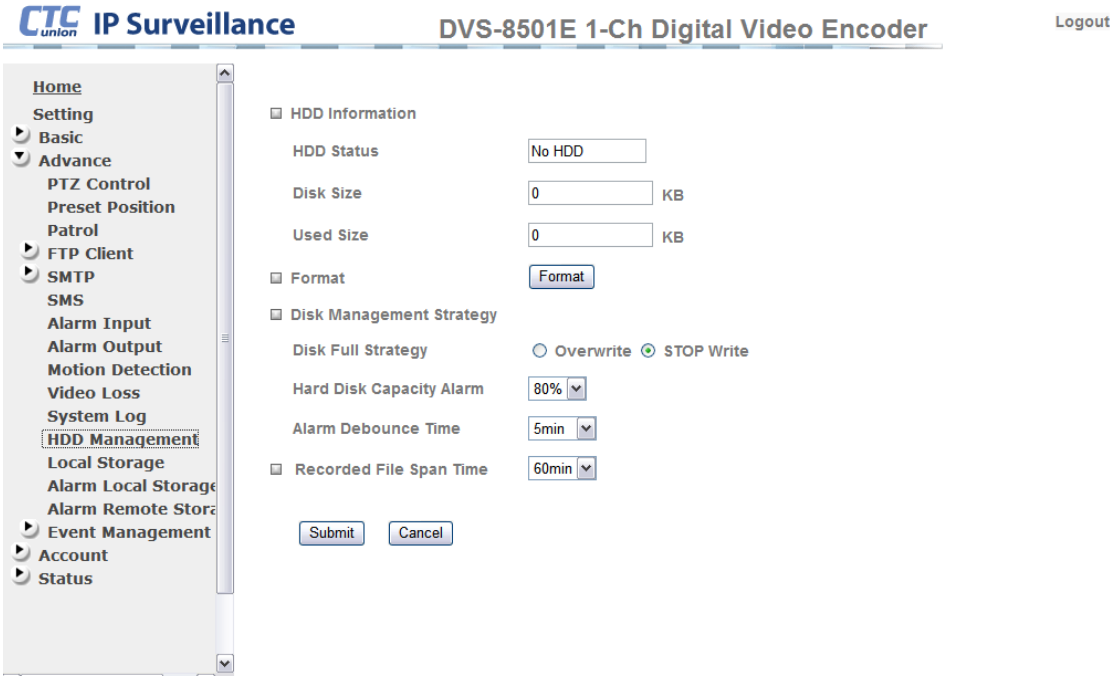
Save video to remote storage device when event occurs



- Alarm Remote Storage: Turn on or off this feature
- IP Address: IP address of the remote storage device.
- Port: The port of the remote storage device.
- Stream Choice: Choose to store Main Stream or Sub Stream in the remote storage device.

7.4. Storage Management

7.4.1. HDD management

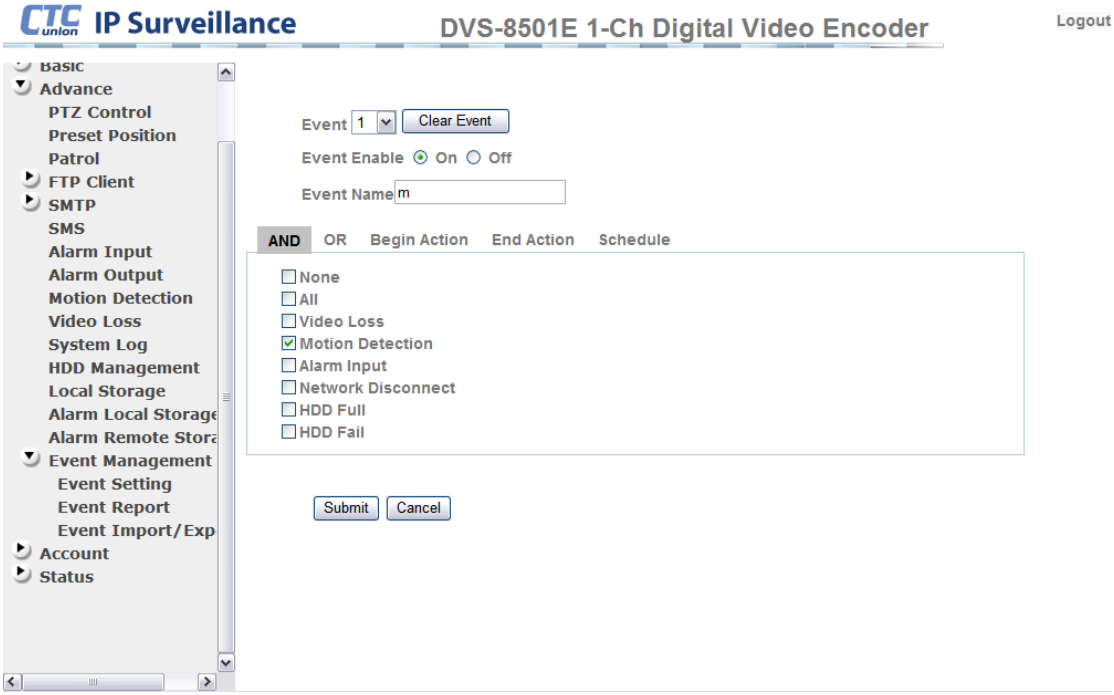


- HDD information: If there is a hard disk installed, the disk size and used size will be shown. If no disk is installed, both will show 0.
- Format: Click “Format” button to format the hard disk. All data will be erased. It is recommended to format the hard disk the first time, before it is used for video storage activities.
- Disk Management Strategy :
  Disk Full Strategy:
  Choose “Overwrite” to overwrite the old data when hard disk is full.
  Choose “STOP Write” to stop recording when the hard disk is full.
- Hard Disk capacity alarm: Send alarm when hard disk space reaches the set percentage.
- Alarm Debounce Time: Duration between sent alarm event when alarm condition is positive.
- Recorded File Span Time: Makes video split into files of 15, 30, 45 or 60 minute segments.

7.5. Event Management

This function includes event setting, import and export.

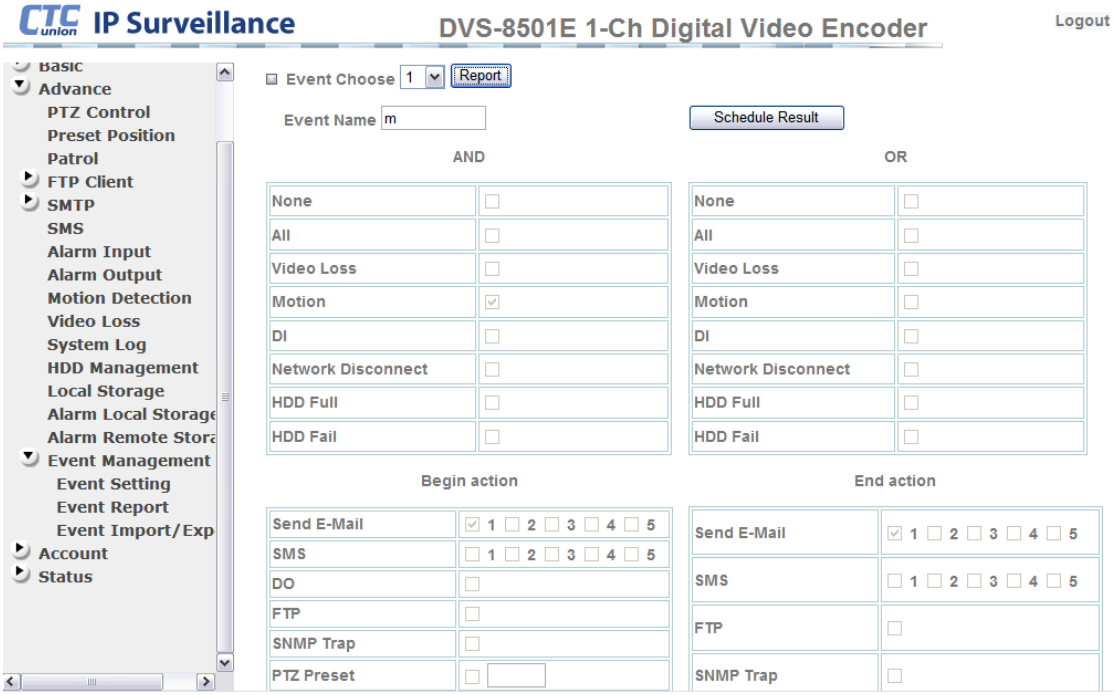
7.5.1. Event Setting



- Event : Give every event setting a serial number
- Event Enable: Turn event setting function on or off.
- Event Name: Give every event a specific name for Identification.
- AND: Select trigger-event. In “AND” condition, all events should happen, and then device triggers an alarm.
- OR: Select trigger-event. In “OR” condition, any one of the selected events will trigger an alarm.
- Begin Action: Select action when alarm is triggered.
- End Action : Select action when alarm has ended
- Schedule: Scheduled recording. The same table as “Local recording”

7.5.2. Event Report

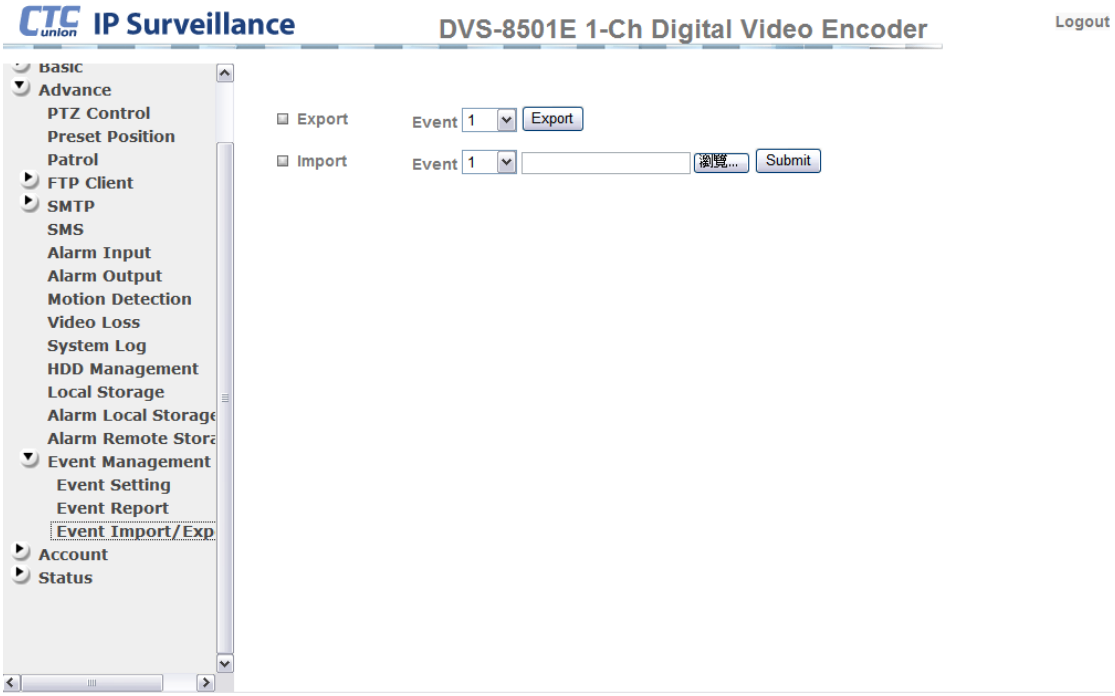
Use the Event Report page to filter and manage all events recorded by the system. Filtering uses 'and' and 'or' logic to filter particular events.



Click on ”Report” to show a report for the chosen event index.

7.5.3. Event Import/ Export

All Event settings can be exported to a file. User can also import a previously saved event setting export or file from a different DVS for cloning purposes.



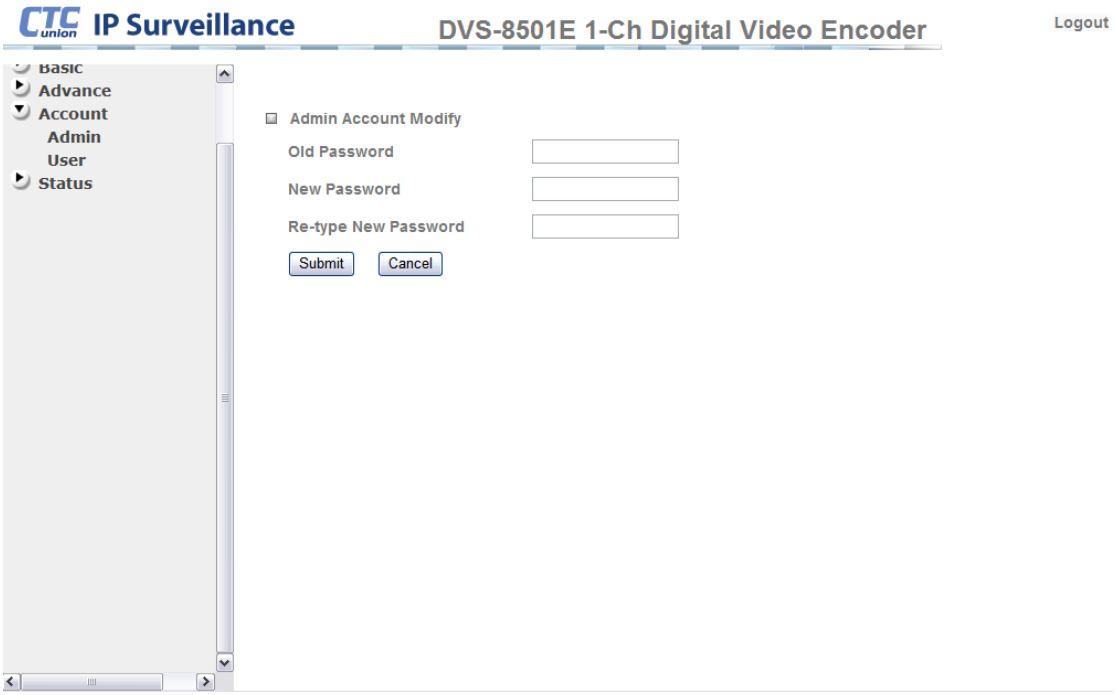
Action:

- Export: Click ”Export” to export an event file. Then, select “save as” to save on PC.
- Import: Click ”Browse” to select a specific file to import.

8. ACCOUNT MANAGEMENT

8.1. Admin

Administrator's default username and password are both "admin". This page allows the administrator to change the password for security purposes.

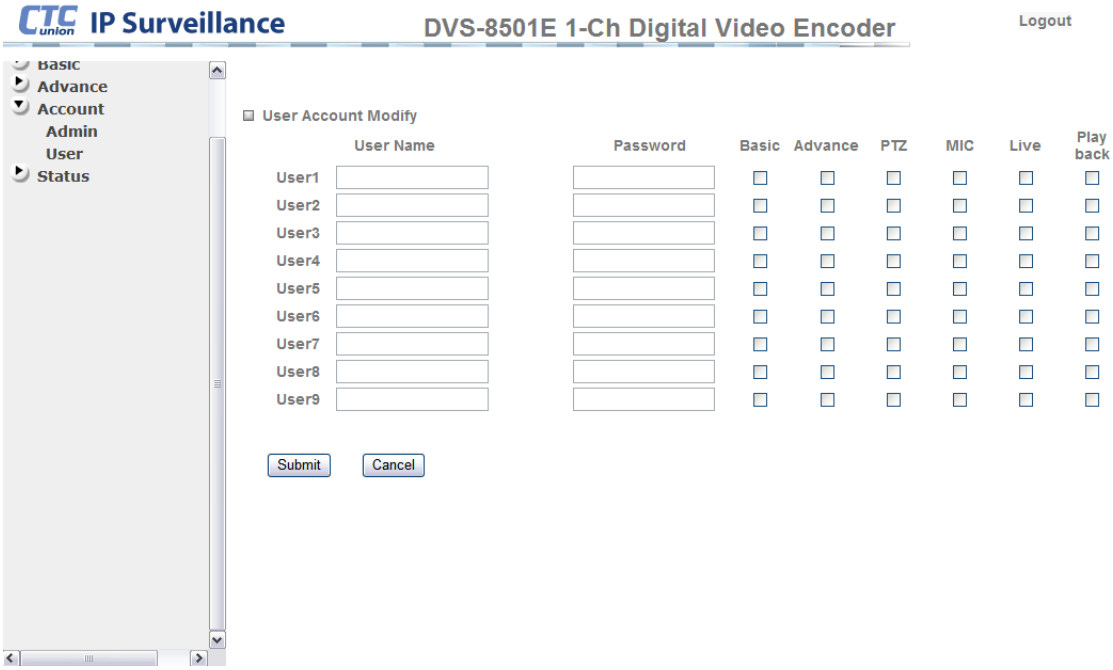


Action:

- Input old password to verify that the user is indeed the administrator.
- New Password: Enter the new password.
- Re-type New Password: Enter the new password again for confirmation.
- Click 'Submit'.

8.2. User

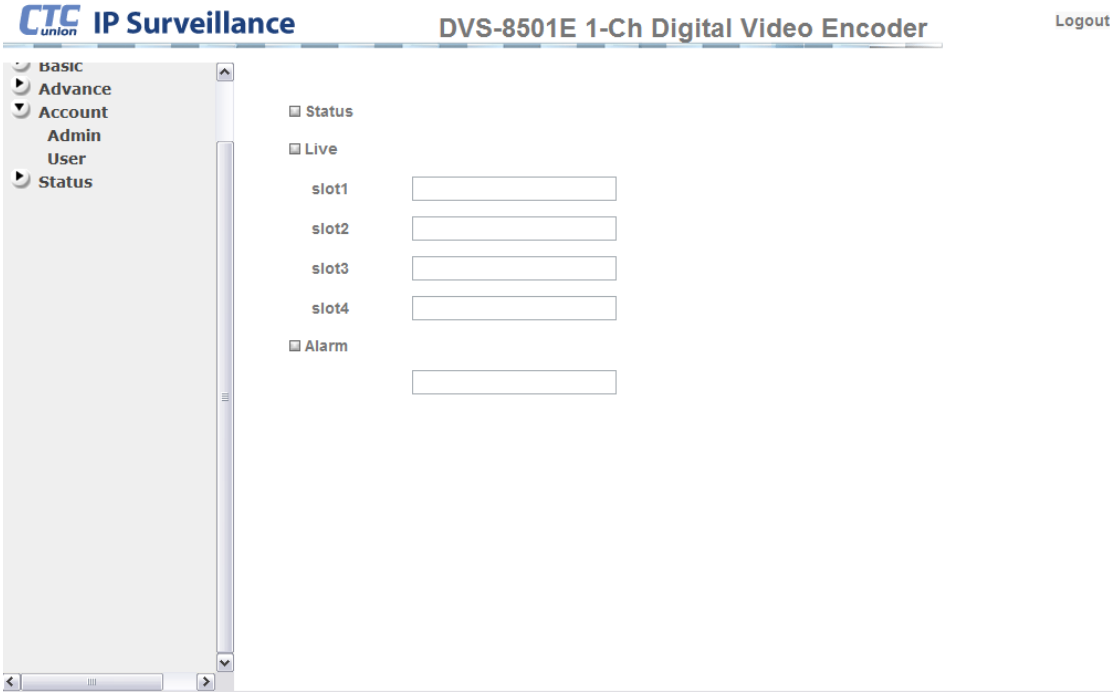
The administrator can create up to nine more users and assign permissions under Account Management. The functions include adding or changing a user's "User name", "Password" and limits of authority.



- User name: Input the desired user name.
- Password: Input the desired user password.
- Basic : User’s authority allows ”Basic” live viewing functions
- Advance : User’s authority allows setting ”Advanced” functions
- PTZ: User’s authority allows control of a PTZ camera.
- MIC : User’s authority allows use of ”MIC” function
- Playback: User’s authority allows watching ”Playback” of recorded video.

Note: Single or multiple authority selects are allowed.

9. DVS STATUS



The Status displays active connections to the DVS and any alarm indications per channel (socket connection).

- Live: Show IP and port number of live streaming connections. Up to 4 stream connections can be supported by the DVS. Main stream connections will show (M) while sub-stream will be indicated by (S).
- Alarm: Show IP and port number of alarm streaming connection. Alarm streaming only occurs when the DVS has been configured to send a stream during a pre-programmed alarm condition (such as motion detection). It then send the stream to a pre-defined receiver. The receiver's IP, port and main or sub stream indicator will be shown.

10. SYSTEM LOG

The System Log holds a record of activity recorded by the Linux operating system of the DVS. This log may be viewed on the DVS or it may be configured to send the log to a log server for centralized management.

- Remote Log: Send log to remote log server when enabled.
- Server IP : Input IP of remote log server
- Port: Remote Log Server port. (Range from 1024 ~ 65535)
- Current Log: Shows the DVS current log in a window of the web management page. When full, new data will overwrite the oldest data in the queue (first in first out).
- Click 'Submit' to make changes

11. TROUBLE SHOOTING

1) I can’t seem to add the DVS video into the NVR live view. Attached is a screenshot of my NVR setting. Please check what am I missing?

If you are using RTSP streaming, please make sure that you have chosen the Stream Mode in RTSP properly. (See attached picture). By the way, the 6789 port is for UDP stream. You also have to make sure that there is no firewall or network block concern if there is network device like NAT between the NVR and the DVS. If there is, make sure you forward the port properly.

2) In web browser playback, I can’t fast forward the video. I dragged the slider, but nothing happens.

Yes, we have found this problem in firmware V1.1532 which you have on hand. This problem didn't exist in the previous edition. We will fix it very quickly and provide you the updated firmware as soon as it is available.

3) I can’t find a way to backup video directly from the DVS local HDD onto my PC. I pressed the REC button in playback, it seems to start recording whatever is playback, but I tried to play the recorded file on VLC, nothing happens. Can I just copy the video from the DVS HDD to my PC, without waiting for the REC?

The only way to back up the video now from the HDD is to push the REC button while doing the playback. The backup video needs to be transcoded to AVI format to be successfully played on the VLC player. Attached zip file is the tool software that you can use to transfer the back up video. We will provide a more efficient process to manage the video files in the HDD very soon.

4) The email notifies me of motion detect, but there’s no attachment. Is this normal?

Please open the DVS page through I.E. Go to
"Setting"-->"Advance"-->"SMTP"-->"General" to set up the email address. Make sure to check the "JPEG" box to send the attached file.

5) Is there a way to store the video recording directly to a PC over SAMBA or NFS protocol?

For SAMBA, although our DVS has embedded Linux, we put most of the CPU resource on the video encode and decode processes. You can understand it while you operate the DVS which brings the exceptional hardware encode capability. Therefore, the DVS-8501E so far cannot support either SAMBA or NFS protocol.

6) How do I use the Live stream URL (rtsp : //ipaddress/live.mp)

You should use VLC media player to watch the video as VLC can support the H.264 compression format. Real player and Windows Media Player cannot support H.264 compression yet.

7) What is Cell Threshold

This parameter means the number of scan times in a period in the motion detection area. The higher the setting number is, the more scan is proceeding in a single period (It means more "Sensitive"). On the other hand, the lower the setting number is, the less scan is proceeding.

8) What is Spatial Threshold

This parameter means the image alteration rate inside the motion detection area. The higher the setting number is, the higher the threshold of the motion detection activation which means the harder the condition of motion detection will be sufficient.

9) What is Debounce time

It means during the setting time, all the motion detection detected will be treated as one detected event. For example, if you set it at the min. 20 seconds, there is one moving object trigger the motion detection event. In the following 20 seconds, even if there are other triggers in the same motion detection area, the user will receive the alarm only one time. This debounce time can prevent the user from receiving too many redundant alarms. After all, once the first motion trigger the alarm, the user can playback the video to check out the related image data around the trigger time.

10) SMTP already set but received no email notification?

You have to set up the SMTP server and Sender Mail Address under same source. That means, for example, if you set "smtp.gmail.com" in SMTP server, the Sender Mail Address has to be XXXXX@gmail.com. (XXXXX depends on the actual gmail account). Please kindly note that we suggest you choosing 456(SSL) port and check SSL under Authentication while using gmail as SMTP server.

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